No. 88-348

FILED
FEB 27 1989
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CLERK

IN THE

Supreme Court of the United States

OCTOBER TERM, 1988

NEW ORLEANS PUBLIC SERVICE INC.,
Petitioner,

v.

THE COUNCIL OF THE CITY OF NEW ORLEANS, *ET AL.*
Respondents.

On Writ Of Certiorari To The United States Court of Appeals For The Fifth Circuit

---

JOINT APPENDIX

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PETITION FOR CERTIORARI FILED AUGUST 25, 1988
CERTIORARI GRANTED JANUARY 9, 1989

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The Opinion and Order of the District Court is set out in the Appendix to the Petition for Certiorari at 21A-33A.

The Judgment of the Court of Appeals is set out in the Appendix to the Petition for Certiorari at 35A.

U.S. COURT OF APPEALS
FOR THE FIFTH CIRCUIT

Case Number 88-3194

Circuit 5 Appeal from
Eastern District of Louisiana
at New Orleans
Date Docketed 03/22/88
$65 Fee Paid in D.C.
Judge A. J. McNamara
Date Notice of Appeal Filed 03/21/88
D.C. Docket Number CA-88-559-"D"

NEW ORLEANS PUBLIC SERVICE INC.,
Plaintiff-Appellant,

versus

THE COUNCIL OF THE CITY OF NEW ORLEANS,
JOSEPH I. GIARRUSSO, LAMBERT C. BOISSIERE, JR.,
MICHAEL EARLY, JAMES N. SINGLETON,
DOROTHY MAE TAYLOR, JOHNNY JACKSON,
and PEGGY WILSON,
Defendants-Appellees.

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RECORD, EXHIBITS AND BRIEF INFORMATION

Date	Filing
3/24/88	Record on Appeal—2 Vols.
3/24/88	Exhibits-1 Box
6/15/88	Exhibits-3 Boxes
4/13/88	Records Excerpts—Appellant
3/24/88	Briefing Notice Issd.
4/13/88	Brief for Appellant—due 4/13
5/3/88	Brief for Appellee (J) (Corrected)
5/13/88	Reply Brief for Appellant (J) due 5/13
6/6/88	Rule 28(j) letter—Appellant (J)
5/10/88	Rule 28(j) letter—Appellee(J)
6/28/88	Rule 28(j) letter—Appellant(J)
7/1/88	Rule 28(j) letter—Appellee(J)
7/1/88	Rule 28(j) letter—Appellant(J)
7/7/88	Rule 28(j) letter—Appellee(J)

MISCELLANEOUS FILING

3/22/88	Dup. Notice of Appeal and Clerk's Statement of Docket Entries

EXTENSION

Expedited—No extensions

CALENDAR INFORMATION

Date	Proceeding
4/29/88	Case Assigned for 6/8/88 in EB Hearing Panel: ABR-RGG-EHJ
6/8/88	Case Argued by Appellant and Appellee

OPINION INFORMATION—PUBLISHED

7/28/88	ABR Affirmed—Signed-Yes

MOTIONS

3/22/88	Injunction Pending Appeal & Expedite Response Filed By—City Date—3/30/88 Denied—S9 By Court Date—4/6/88

OTHER DOCKET ENTIRES

Date	Proceeding
3/31/88	Flg. appellant's ltr. dtd. 3/31/88 in response to misstatements in Memo in opposition to motion to injunction pending appeal, etc.
4/5/88	Flg. ltr. dtd. 4/4/88 from appellee objecting to ltr. of cnsl. for NOPSI. (sub. via Rapicom-4/5/88)
4/6/88	Flg. Order DENYING appellant's mot. for injunction pending appeal. Further GRANTING appellant's mot. to expedite appeal, the Clerk is directed to place appeal on next available oral arg. dkt. (HAP, SDJ, PEH)

5/26/88	Flg. ltr. dtd. 5/25/88 from appellees' cnsl. enclosing copies of pg. 32 of brief which was missing from their set, and calling to Court's attention error in footnote 6 on page 7. (J)
6/10/88	Flg. ltr. dtd. 6/9/88 from Cnsl. Vince supplementing oral arg. (J)
6/10/88	Flg. ltr. dtd. 6/10/88 from Cnsl. Abbott supplementing oral arg. (J)

JUDGMENT OR MANDATE INFORMATION

7/28/88	Flg. & Entg. Judgment
8/19/88	Jdgt. as Mdt. Issd. to Clerk
8/19/88	Record on Appeal Retd. to Clerk (2 vols)
8/19/88	Exhibits Retd. to Clerk 4 Boxes

SUPREME COURT INFORMATION 88-348

9/2/88	Notice of Flg. of Cert. Pet. on 8/26/88
1/11/89	Order of S.C.—Granted 1/9/89

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF LOUISIANA

88-00559

NEW ORLEANS PUBLIC SERVICE INC.,
Plaintiffs,

v.

THE COUNCIL OF THE CITY OF NEW ORLEANS, LAMBERT BOISSIERE, JR., MIKE EARLY, JOSEPH I. GIARRUSSO, JOHNNY JACKSON, JR., JAMES SINGLETON and DOROTHY MAE TAYLOR,
Defendants.

District—053L
Off.—2
Docket No.—Yr. 88 Number 00559
OR—1
Filing Date—Mo. 2 Day 9 Yr. 88
J—3
Nature Suit—890
Judge—3L24
Mag.—3LBB
MDL Docket—3L21

ADDITIONAL DEFTS CONTINUED

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PEGGY WILSON

DATE	NR.	PROCEEDINGS
2/9/88	1	Complt, 8 sms issd.
2/9/88	2	Pltf's MTN & ORDERED that Council of City of New Orleans show cause on 3/2/88 at 10:00 am why prelim injunction should not issue. (AJMc) 2/11/88 DKTD 2/12/88.
2/9/88	3	Pltf's ntc of related case 85-5273 D & 85-3398D.
2/9/88	4	ORDERED that matter is TRANSFERRED to Section "D" (2). (GA Jr) 2/9/88 dKTD 2/12/88.
2/12/88	5	M.E. 2-12-88; Phone Conf. held; HRG. on the Mtn. for Prel. Injunction set for 3/2/88 at 10:00; BY5:00 on 2/23/88, counsel for deft. to file any Mtns. to Remand Companion lit. that has been removed to this ct by NOPSI. By Noon on 2/24/88, counsel for deft. to file any Mtns. to dism complt w/ any reply Memoranda to the req. for Inj. Relief. By 2/29/88 at Noon, NOPSI to file Opo. Memo. to the Mtns. to Remand, Opo. Memo. to Mtns. to Dism and Reply Memo. concerning the Prel. Injunct. (AJM) dktd. 2-12-88
2/24/88	6	Mtn. by defts' to Dism.
2/29/88	7	Pltf's Memo. in Opo. to Mtn to Dism. and for Remand.
3/1/88	8	Mtn. by defts' & ORDERED that Clinton Vince, Bernhardt Wruble, Glen Ortman and Nancy Wodka are permitted to appear as co-counsel. (AJM) 3-1-88 dktd. 3/3/88.

3/2/88	9	M.E. 3/1/88; Hrg. set for 3-2-88 is CANCELLED. Addit'l deps will be taken March 2, 3 or 4, 1988, and all deps. and any other memranda will be subm. to ct by 12:00 Noon on Saturday, March 5, 1988. The pending Mtns. will then be considered by the Ct. on documents w/out oral arguments. (AJM) dktd. 3-3-88.
3/8/88	10	Reply Memo. by defts' in support of their Mnt. oto Dism.
3/8/88	11	Pltf's Mtn. & ORDERED that same have leave to file Supple Memo. in Support of Mtn. for Prel. Injunction. (AJM) 3-9-88 dktd. 3-10-88.
3/9/88	12	Pltf's Supple Memo. in Support of Mnt. for Prel. Injunct.
3/10/88	13	OPINION & ORDER: that Council's Mtn. to Dism is GRANTED and Pltf's Complt be DISM. w/out prej (AJM) 3-10-88 dktd. 3-11-88.
3/10/88	14	JUDGMENT: ORDERED in favor of Defts' and agnst. Pltf. dism. pltf's complt w/out prej. and for costs (AJM) 3-10-88 dktd. 3-11-88.
3/10/88	15	Pltf's depo of John L. Cowan on 3/2/88.
3/10/88	16	Pltf's depo of Edward A. Cecil on 3/3/88.
3/10/88	17	Pltf's depo of David L. Quivey on 3/2/88.
3/10/88	18	Pltf's depo of Malcolm H. McLetchie on 3/3/88.
3/21/88	19	Pltf's Ntc. of Appeal of judgment entered on 3-10-88.
3/22/88	xx	Notice of Appeal forwarded to all parties. (dlm)

3/21/88	20	Pltf's Mtn. for Exped. Hrg. on Mtn. for Inj. Pend. Appeal—ORDERED Exped. Hrg. held by Phone Conf. & Mtn. for Injunct. is DENIED. (AJM) 3-21-88 dktd. 3-23-88.
3/22/88	21	Pltf's Mtn. for Injunction Pending Appeal.
3/23/88	xx	Record forwarded to Court of Appeals. (dlm)
4/11/88	22	(5TH CIRCUIT ORDER) ORDERED that pltf's mtn for injunction pending appeal is DENIED; that pltf's mtn to expedite appeal is GRANTED, Clerk directed to place appeal on next available oral argument docket. (POLITZ, JOHNSON & HIGGINBOTHAM)
8/22/88	xx	Record returned from Ct of Appeals. (JMD)
8/22/88	23	(5th Cir) ORDERED that the judg. of the dist. ct. is AFFIRMED; FURTHER ORDERED that pltf-appellant pay to defts-appellees the costs on appeal to be taxed by Clerk of Ct. Issd. as Mandate 8-19-88.

IN THE MATTER OF EX PARTE APPLICATION OF NEW ORLEANS PUBLIC SERVICE INC. FOR AN INCREASE OF ITS ELECTRIC RATES (DOCKET NO. CD 85-1)

PRUDENCE INVESTIGATION: DETERMINATIONS AND ORDER REGARDING THE PRUDENCE OF THE MANAGEMENT OF NEW ORLEANS PUBLIC SERVICE INC. WITH RESPECT TO GRAND GULF I

COUNCIL OF THE
CITY OF NEW ORLEANS

Dorothy M. Taylor
Joseph I. Giarrusso
Lambert Boissiere, Jr.
Mike Early
Johnny Jackson, Jr.
James Singleton
Peggy Wilson

The Foregoing is Certified To Be A True and Correct Copy

/s/ Emma Williams
Clerk of Council
City of New Orleans

Date: February , 1988

/s/ Lambert Boissiere, Jr.
/s/ Peggy Wilson
/s/ James M. Singleton
/s/ Mike Early
/s/ Johnny Jackson
/s/ Joseph I. Giarrusso

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CITY HALL: _____

BY: COUNCIL MEMBERS TAYLOR, GIARRUSSO, BOISSIERE, EARLY, JACKSON, SINGLETON AND WILSON

IN THE MATTER OF EX PARTE APPLICATION OF
NEW ORLEANS PUBLIC SERVICE INC.
FOR AN INCREASE OF ITS ELECTRIC RATES
(DOCKET NO. CD 85-1)

PRUDENCE INVESTIGATION: DETERMINATIONS AND ORDER

I. INTRODUCTION

The Council has undertaken an investigation of the prudence of the management of New Orleans Public Service Inc. ("NOPSI") with respect to NOPSI's involvement in the Grand Gulf Unit No. 1 nuclear-fueled electric generating station ("Grand Gulf I"), which is part of a larger project involving a second unit ("Grand Gulf II"). This investigation is an outgrowth of the ratemaking proceeding initiated by NOPSI's filing of an application with the Council on May 17, 1985 for a rate increase to reflect its share of the costs of Grand Gulf I. It was formally instituted by Resolution R-85-636, adopted October 10, 1985.

A. Authority of the Council

The Council has conducted this prudence investigation under its authority as regulator of NOPSI's rates and operations. Pursuant to Section 4-1604 of the Home Rule Charter of the City of New Orleans, the Council is invested with "all powers of supervision, regulation and control over any street railroad, electric, gas, heat, power, waterworks, and other public utilities within the City of New

Orleans."[1] The Council's regulatory power is recognized by the Louisiana Constitution of 1974, which excludes from the authority of the Louisiana Public Service Commission ("LPSC") a public utility otherwise regulated by a political subdivision of the state. La. Const. Art. 4, Section 21(b) and (e).

NOPSI's rights and obligations with respect to the provision of electric service in New Orleans derive from a series of events and enactments beginning in 1921. The Louisiana Constitution of 1921 granted to the City of New Orleans the right and authority to "perform all of the acts pertaining to its local affairs, property and government, which are necessary or proper in the legitimate exercise of its corporate power and municipal functions." La. Const. of 1921, Art. 14, Section 22. Also in 1921, the Louisiana legislature authorized certain cities, including New Orleans, to grant franchises to public utilities and to regulate them. The pertinent statute, La. Rev. Stat. Ann. § 33:4405, read in part:

> The governing authority of every city having a population of one hundred thousand or more may grant indeterminate permits for the use of the streets and other public places in connection with the operation and maintenance of any public utility . . . . [and] may prescribe, stipulate, or agree to such other conditions of the permits as it deems proper. Any violation of any of the conditions shall be sufficient grounds for forfeiture of the permit, in which event or for other legal

[1] With the exception of a brief period, the Council has exercised regulatory jurisdiction over NOPSI since 1922. On November 23, 1981, pursuant to Ordinance No. 8264 (adopted by the Council on August 6, 1981), a referendum of the voters caused regulatory authority over NOPSI to be transferred to the Louisiana Public Service Commission ("LPSC"). Such powers were returned to the Council by a referendum of the voters on May 4, 1985. Formal transfer of powers from the LPSC to the Council took place on May 15, 1985.

> cause, the city may sue for its forfeiture, cancellation, or revocation or, at its option, may sue for its enforcement with damages suffered . . .

Before the creation of NOPSI, the New Orleans Railway & Light Company provided electric service to the City of New Orleans. On April 21, 1922, the Commission Council of the City of New Orleans, in connection with the reorganization of the latter company, passed Ordinance No. 6822, which set forth the terms and conditions under which NOPSI was to be franchised. Among the conditions was the requirement that the Commission Council "will at all times require the properties to be efficiently and economically managed and operated." Ord. No. 6822, Sec. 2.

On September 2, 1922, the Commission Council enacted Ordinance No. 7068, which officially enfranchised NOPSI. Under the terms and conditions of that ordinance, NOPSI was "entitled and authorized to charge and collect such fair and reasonable rates for electrical energy furnished and delivered in the City of New Orleans as may be established by the City of New Orleans and/or other regulatory authority in accordance with law." Ord. No. 7068, Sec. 4. NOPSI's authority to operate and to collect rates thus derives entirely from the acts and authority of the City Council and its predecessor, the Commission Council.

B. Events Leading to These Proceedings

NOPSI is one of several wholly-owned subsidiaries of Middle South Utilities, Inc. ("MSU") and is engaged in the retail sale of electricity to consumers in New Orleans (other than the 15th Ward, Algiers). Grand Gulf I is a 1250 megawatt nuclear generating plant located in Port Gibson, Mississippi, a 90% ownership interest in which is held by System Energy Resources, Inc. ("SERI") (the corporate name of which formerly was Middle South Energy, Inc. ("MSE")), another wholly-owned subsidiary of MSU. Originally projected to cost $875 million, Grand Gulf I

entered commercial operations in July of 1985 at a cost in excess of $3.6 billion.

NOPSI became involved in the Grand Gulf project in 1974 when, without informing the Council, it entered into the first of a series of agreements with MSE and other MSU-owned operating companies, pursuant to which it joined in providing the basis for the financing of the plant by agreeing to pay part of its costs and purchase a portion of its output. Neither these nor subsequent agreements appear to have been the result of arms-length bargaining and they were not approved by the Council.

The Council first became aware of the potential impact of Grand Gulf on NOPSI and New Orleans' ratepayers after NOPSI had already committed in 1980 to take a 29.8% share of Grand Gulf I. In September 1980, a hearing was held before the Council on NOPSI's application for a capacity adjustment clause that would have allowed NOPSI automatically to pass through its Grand Gulf costs to the ratepayers without additional action by the Council. NOPSI's Chief Executive Officer, James M. Cain, testified then that New Orleans' ratepayers would *not* have to pay for Grand Gulf should the Council deem it inappropriate, and that NOPSI would instead sell its Grand Gulf power to other utilities.

In 1983, Grand Gulf I became the subject of proceedings before the Federal Energy Regulatory Commission ("FERC"), which exercises jurisdiction over the sale of electricity at wholesale in interstate commerce pursuant to the provisions of the Federal Power Act, 16 U.S.C. § 8 *et seq.* In Opinions No. 234 (31 FERC ¶ 61,943) and No. 234A (32 FERC ¶ 61,424), issued on June 13, 1985 and September 26, 1985, respectively, the FERC found that the share of Grand Gulf I accepted by NOPSI's management was unreasonable and excessive. The FERC allocated the capacity and cost responsibility of Grand Gulf I among NOPSI and the other MSU-owned operating com-

panies as follows: Arkansas Power & Light Company ("AP&L")—36%; Louisiana Power & Light Company—14%; Mississippi Power & Light Company ("MP&L")—33%; NOPSI—17%. The FERC's decision was reversed and remanded for reconsideration of these allocations. *Mississippi Industries v. Federal Energy Regulatory Commission*, 822 F.2d 1104 (D.C. Cir. 1987), *cert. denied*, 56 U.S.L.W. 3414 (1987). Recently, the FERC issued a further decision on remand in which the agency reaffirmed its prior allocation. *System Energy Resources, Inc.*, Opinion No. 292, 41 FERC ¶ ___ (Nov. 30, 1987).

While the FERC's decision requires that NOPSI be responsible for 17% of Grand Gulf I costs, the FERC did not address the question of how or in what manner such costs should be recovered through NOPSI's retail electric rates. Nor did the FERC address the prudence of the management of NOPSI or other individual operating companies with respect to Grand Gulf; problems associated with possible "rate shock" threatened by the magnitude of the costs; the need for "phased-in" retail rate approaches; or other matters relating to retail rates. The decision of the FERC is addressed later in more detail.

Following the FERC's decision, NOPSI initiated a retail ratemaking proceeding by filing an application for retail rate relief with the Council on May 17, 1985. NOPSI requested the Council's permission to increase its electric rates for the principal purpose of paying capital-related expenses associated with its share of Grand Gulf I, approximately $168 million per year.

After several hearings and extensive federal court litigation, described *infra*, the Council on March 20, 1986, adopted Resolution No. R-86-112, which accepted, subject to certain modifications, a settlement proposal advanced by NOPSI with respect to its application for permanent rate relief. The settlement required that NOPSI's shareholders absorb approximately $51.2 million of Grand Gulf

I costs and provided that remaining costs would be phased-in as retail electric rates over approximately 12 years, with annual rate increases limited to approximately 6 percent. The settlement assured that the full Grand Gulf I expenses would not be immediately passed through to ratepayers, an event that would have resulted in an immediate retail rate increase of 60 percent or more and would have subjected the New Orleans community to severe "rate shock."[2] Moreover, the settlement expressly provided that it did not curtail the Council's right to conduct this proceeding concerning the prudence of NOPSI's involvement in the Grand Gulf project; to municipalize the electric service by acquisition of NOPSI's assets; or to pursue a lawsuit pending in state court regarding the possible abrogation of NOPSI's Grand Gulf contracts.

C. The Proceedings

The active participants in this prudence investigation have included NOPSI, legal and technical consultants retained by the Council, and one intervenor, Citizens for Safe Energy, Inc. After the close of evidence on the substantive issue of imprudence, the Attorney General of the State of Louisiana sought and was given permission to intervene. His position was limited to the remedy phase of this proceeding and is described later. Members of the public also have been permitted, at various Council meetings, to express their views regarding the issues involved in the general rate proceeding.

The evidentiary portion of this investigation was conducted in two phases. The first phase was devoted to the substantive issues bearing upon the prudence of NOPSI's

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[2] There was testimony in the rate case that immediate implementation of the rate increase proposed by NOPSI would have resulted in the loss over 6,000 jobs, pushed the income of 1,760 families below the poverty line, made it impossible for over 1,100 otherwise qualified families to qualify for mortgage loans, and otherwise would have had a profound adverse impact on the community.

management. The second phase focused on the appropriate remedy to be imposed in the event imprudence were found. During the first phase NOPSI filed prepared testimony, including exhibits, on December 16, 1985. Thereafter, expert consultants retained by the Council submitted prepared testimony on March 19, 1986. NOPSI submitted prepared rebuttal testimony on March 31, 1986. Depositions were taken of 17 persons, including the proposed witnesses and others. Hearings were conducted before a Hearing Examiner appointed by the Council, John B. Farmakides, formerly an official of the federal Nuclear Regulatory Commission, and extended over a period of eight days between April 4 and 14, 1986. This phase of the proceedings resulted in an extensive evidentiary record comprising more than 100 exhibits (including all the depositions taken) and about 2000 pages of hearing transcript.

During the second phase of the proceeding, which focused on the possible remedies and their economic impact if imprudence were found, NOPSI and the City's consultants filed additional prepared testimony in September and October 1986. Further hearings were conducted before the Hearing Examiner in the period October 21 to 24, 1986. Additional testimony regarding the impact of the Tax Reform Act of 1986 was submitted in February 1987, and a final hearing was held on February 24, 1987. The record was thereafter officially closed, and a certified index was submitted to the Council on April 16, 1987. On October 23, 1987 the Council conducted a public hearing on the prudence inquiry, at which the participants were given the opportunity to present their views. Issuance of a decision in this matter was necessarily delayed during the pendency of settlement negotiations and by other intervening utility matters which occupied the Council's attention.

Appendix A hereto is an index of the evidentiary record for the first phase of the proceeding, prepared and submitted by the Hearing Examiner. Appendix B hereto is the Hearing Examiner's index of the evidentiary record

for the second phase of the proceeding. References to pages in the transcript are in the form "Tr. ___." References to exhibits are in the name of the party originating or sponsoring the exhibit, often followed by a page number (e.g., "NOPSI Exh. 36 at 17" or "CNO Exh. 5 at 142").

Attached as Appendix C is a list of the witnesses in this proceeding and others playing a significant role in the events under review, along with a brief biographical treatment of each.

II. SUMMARY OF THE FINDINGS OF THE COUNCIL

On the basis of this record, we have reached the following findings and conclusions as to the actions of NOPSI's management with respect to Grand Gulf:

1. In 1974, NOPSI's management committed to an indeterminate responsibility to pay for Grand Gulf, such that it did not know the amount of power and energy for which NOPSI would be responsible or NOPSI's cost exposure. It did so virtually without placing any limits on NOPSI's liability. The share of Grand Gulf for which NOPSI might be ultimately responsible was subject to factors beyond the control of NOPSI's management. While it may well have been necessary and proper for NOPSI to secure new sources of additional capacity in 1974, the indeterminate and uncontrollable nature of its commitment to one massive project cannot be squared with sound or prudent management. Moreover, the indefinite nature of contractual commitments undertaken at the outset of the project became part of the factual record that permitted the FERC to allot a 17 percent share of Grand Gulf I to NOPSI despite its much smaller relative size among the operating companies.

Because of the FERC's determination, which legally establishes NOPSI's share of Grand Gulf I, we do not, however, alter or interfere with that allocation or base any monetary remedy on the foregoing finding of imprudence.

Although we disagree vigorously with the size of the FERC's allocation to NOPSI and will continue to contest that allocation in federal court proceedings, we are obligated to accept it for this proceeding as binding on the company and as the authoritative establishment of NOPSI's wholesale rate for Grand Gulf I.

2. The manner in which NOPSI's management maintained oversight and review of its Grand Gulf obligation as the project went forward was uncritical and severely deficient, particularly during the important 1979-80 time period, which was characterized by NOPSI's management as a "very dynamic time." There were, with respect to Grand Gulf, no established committees within NOPSI, no regular procedures for handling or analyzing information, no meetings on important events, little if any prior consultation with NOPSI's board of directors, and substantially no effort to probe the significance of currently unfolding events and circumstances of great potential importance. At best, NOPSI's management simply remained ignorant of important information and the significance of events that had a dramatic impact on NOPSI's Grand Gulf commitment. At worst, NOPSI's management was caught up in an effort to portray Grand Gulf as a great benefit to ratepayers at a time when it knew the prospect to be otherwise. Its actions fell far short of prudent management.

3. If NOPSI's management had been aware of important new developments in the forecasting of nuclear plant costs, as it should have been, and if it had properly appraised the impact of the Three Mile Island incident in March 1979, NOPSI's management, acting prudently, would have tried to reduce the risk of NOPSI's Grand Gulf commitment by means that were available to it. Instead, it did the opposite. In January 1980, in the wake of Three Mile Island, it committed to a 29.8 percent share of Grand Gulf I, which was then an unfinished nuclear plant—a share that the FERC found to be excessive—and

made no effort to reduce its risk exposure. NOPSI could be sure that it would be required to take some portion of Grand Gulf as a matter of system responsibility, and should have sought to limit its risk by selling all or part of its share off-system—as it later told the Council it could do. NOPSI could then have purchased less expensive coal-fired capacity to meet its future needs. NOPSI took no such action or other measures, and such inaction was grossly imprudent under circumstances as they existed in 1979-80.

4. We find that in 1979-80, NOPSI should have sold substantially all of its Grand Gulf share off the system, just as its president testified before the Council in September 1980 that NOPSI could do. However, for present purposes, and based on the expert testimony in the record, we are willing to assume that NOPSI might have retained a portion of Grand Gulf I relative to its comparative size within the MSU system—that is, about 9 percent of the system's Grand Gulf I obligation. In other words, NOPSI could have stood by its commitment to take and pay for Grand Gulf I power as required by the System and ultimately determined by the FERC, but should have reduced its risks by making power sales of that portion of its commitment which exceeded a 9 percent share of Grand Gulf. Thus, for the purpose of retail ratemaking, the amount of NOPSI's share of Grand Gulf I above 9 percent should—in the absence of the further considerations discussed below—be passed through as retail rates only at the cost level of coal-fired power, which NOPSI should have obtained as an alternative. On average, this would result in about a 31 percent "effective" reduction in the dollar amount of Grand Gulf I costs that NOPSI could reflect in its retail rates—although, it is important to make clear, this results from an offset to such costs and not from a rejection of the FERC's allocation of them.

5. We have determined, however, that in the circumstances currently facing NOPSI, disallowance of the full

amount warranted by NOPSI's imprudence would cause NOPSI to become insolvent and force its bankruptcy. Further, since NOPSI would be unable to pay all expenses associated with its FERC-determined allocation of Grand Gulf I, such a result might be viewed as an attempt to undercut the FERC's allocation, contrary to our stated intention in conducting this proceeding. Based on the evidence advanced in the second phase of the hearings, we believe NOPSI could withstand an imprudence deduction of $150 million on a one-time basis and, as a matter of caution and conservatism, we have reduced that potential disallowance by a ten percent buffer. We therefore conclude that $135 million of costs attributable to Grand Gulf I should not be recovered in retail rates, this to be implemented as provided herein.

6. As part of our final order in this matter, to assure the feasibility of financing, we shall further specify (a) that there shall be no further deductions for imprudence respecting Grand Gulf I; (b) that NOPSI shall be given timely consideration of rate relief in the future allowing for recovery of its legitimate costs unrelated to Grand Gulf, plus a reasonable rate of return; (c) that NOPSI shall receive prompt consideration of applications for financing necessary to fund its operations; and (d) that the Council understands the need for reasonable assurance to debt and equity investors in NOPSI as to the safety of their investments.

7. We emphasize that our findings and conclusions in this matter are without prejudice to any action that may be taken with respect to both the municipalization of electric service in New Orleans and the "abrogation" lawsuit now pending in Louisiana State courts.[3] Moreover, in the event of a new and different wholesale cost allocation by the FERC or a significant change in financial conditions,

[3] *City of New Orleans v. New Orleans Public Service, Inc.*, No. 84-4767 (Civ. Dist. Ct. for the Parish of Orleans).

the Council shall review the determinations made in light of changed circumstances.

III. PRELIMINARY MATTERS

A. Litigation and Procedural Disputes

Upon acquiring regulatory jurisdiction from the LPSC on May 15, 1985 as previously described, the Council faced the task of establishing the procedural framework within which to execute its regulatory function. However, two days after the Council assumed regulatory authority, and prior to the adoption of filing requirements and procedures, NOPSI filed a retail rate application reflecting its Grand Gulf I costs. The course of proceedings did not run smoothly. After initially proposing a settlement, NOPSI took the position that the Council was required to pass through the full costs of Grand Gulf I immediately, without moderation, and without regard to potential "rate shock" affecting the New Orleans community. It commenced litigation seeking court-ordered rate relief as well as damages from the Council and its members individually. Its litigation efforts were substantially unsuccessful. These events are described below.

After the Council reacquired regulatory authority, it moved promptly to develop filing requirements and other necessary procedures. The Council recognized that NOPSI's application for permanent relief could not be acted upon immediately. Thus, at a public hearing on July 25, 1985, we noted that no formal request for interim rate relief had been filed by NOPSI, and we invited NOPSI to file such a request pending a final rate determination. We offered expedited treatment "in order to prevent any undue hardship" to the company. Council Motion MM-85-326.

NOPSI did not file a request for interim relief but instead, on August 2, 1985, it commenced an action in the United States District Court for the Eastern District of Louisiana seeking declaratory and injunctive relief order-

ing the immediate pass through of Grand Gulf I costs as retail rates—on the ground that the FERC's ruling as to wholesale rates was determinative as to retail rates. NOPSI also sought one billion dollars in damages against the City of New Orleans, the Council, and its members, personally and individually. *New Orleans Public Service, Inc., v. The City of New Orleans*, Civ. Action No. 85-3398 (E.D. La. Sept. 16, 1985) ("*NOPSI I*"). At a hearing on August 12, 1985, the district court, by oral order, denied NOPSI's motion for preliminary injunction. After the denial of NOPSI's motion, and pursuant to district court order, NOPSI sought interim relief from the Council on August 19, 1985. We acted upon NOPSI's request expeditiously. On September 5, 1985 the Council adopted Resolution R-85-526, which granted NOPSI $28.3 million interim relief, specified that NOPSI could recover, for the period of the Council's deliberations, the amount finally determined to be proper and invited NOPSI to seek further interim relief if necessary. Acting upon the advice of expert consultants, the Council determined that NOPSI, given this relief, could remain in a positive cash position through March 1986.

On September 25, 1985, NOPSI requested certain revisions to and clarifications of the grant of interim relief. The Council conducted a public hearing on this request on October 3, 1985. By Resolution R-85-635, issued October 10, 1985, the Council responded to the matters raised in NOPSI's request and again indicated the Council's willingness to review further the need for interim rate relief if merited by future circumstances.

On September 16, 1985, the district court, upon defendants' motion, dismissed NOPSI's complaint on the basis of the Johnson Act, 28 U.S.C. 1342, and the abstention doctrine. In a written opinion, Judge McNamara noted that "the Council is using every feasible alternative to keep NOPSI in a positive cash position." Slip op. at 11. After the dismissal of its lawsuit, NOPSI made a partial submission of its refiled application on September 30,

1985, two weeks overdue, and completed its submission on October 11, 1985. On October 17, 1985, NOPSI filed a notice of appeal of the district court's order in *NOPSI I* to the Court of Appeals for the Fifth Circuit.

On October 10, 1985, the Council, as part of its retail rate proceedings, adopted Resolution R-85-636 (the "Prudence Resolution") which initiated this investigation of NOPSI's prudence with respect to its purchase of power and energy from the Grand Gulf plant and requested NOPSI to respond to a series of questions related to the investigation within 30 days (by November 18, 1985).

NOPSI did not submit such a response, but instead, NOPSI and its affiliate, MSE (SERI), commenced a second action in federal district court on November 14, 1985, seeking a temporary restraining order and injunction against the conduct of the prudence investigation—based on substantially the same grounds as were involved in the prior action. *Middle South Energy, Inc. v. The Council of The City of New Orleans*, Civ. Action No. 85-5273 (E.D. La., Dec. 11, 1985) ("*NOPSI II*"). On December 11, 1985, the district court, on motion, dismissed the second action on essentially the same grounds as it had dismissed *NOPSI I*.

Concurrently with the filing of *NOPSI II*, NOPSI filed its brief in its Fifth Circuit appeal of *NOPSI I* and moved for expedited appeal. NOPSI's affiliate, MSE, filed a motion for leave to file an *amicus curiae* brief in the *NOPSI I* appeal.

Following the dismissal of its second lawsuit and approximately one month out of time, NOPSI submitted prepared testimony and exhibits in this proceeding on December 16, 1985, in response to the inquiries set forth in our Prudence Resolution. A week later, NOPSI filed a motion for a new trial in *NOPSI II*.

On February 14, 1986, the Court of Appeals issued an opinion reversing the district court's determination in

NOPSI I, that it did not have jurisdiction because of the Johnson Act, or should not exercise it because of the abstention doctrine, and the appellate court determined that the case should be remanded for a determination on the merits—as to which it expressed no opinion except to reject certain contentions made by NOPSI.[4] *New Orleans Public Service, Inc. v. The City of New Orleans*, 782 F.2d 1236, 1242 (5th Cir. 1986). The Court of Appeals, however, did not issue a mandate with respect to its decision, and therefore jurisdiction in *NOPSI I* was not returned to the district court. On June 10, 1986, the Clerk of the Court of Appeals issued a letter to the parties indicating that the Court was considering withdrawal of that portion of its opinion dealing with the abstention doctrine and affirmance of the district court's decision, and it requested additional briefs from the parties. These were submitted on June 25, 1986.

On September 2, 1986, the Court of Appeals issued a new opinion, 798 F.2d 858 (5th Cir. 1986), in which it withdrew Part IV of the previous opinion dealing with abstention and affirmed the district court's dismissal of the case on abstention grounds. The Court noted in part that, "the regulation and adjustment of local utility rates is of paramount concern and a matter which demands local administrative expertise." (*Id.* at 862.) The Supreme Court denied NOPSI's petition for a writ of certiorari, notwithstanding the submission of a brief by the FERC and the Solicitor General as *amici curiae* in favor of review. 107 S.Ct. 1910 (April 20, 1987).

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[4] Despite the express requests of NOPSI to decide, as a matter of law, that the Council's regulatory activities were preempted, the Fifth Circuit Court of Appeals specifically declined to do so. The Court noted that (1) NOPSI's claim of preemption was based upon inferential grounds (slip op. at 9); and (2) the cases upon which NOPSI principally relied did not support an immediate pass through of Grand Gulf costs to retail ratepayers. 782 F.2d at 1242.

After the initial decision of the Court of Appeals, NOPSI filed, on February 25, 1986, a motion for summary judgment in *NOPSI II*. This was denied on March 13, 1986. On March 17, 1986, NOPSI filed motions in *NOPSI II* seeking partial summary judgment and/or clarification, expedited review, and certification of certain questions to the Court of Appeals. Through these motions, NOPSI sought to have the district court bar the Council's discovery into a number of areas. (As discussed in the next section, NOPSI had refused to provide certain discovery sought by the Council.) Supplemental briefs were filed on April 1, 1986, at which time the district court took the motions under advisement. However, in a telephone conference between Judge McNamara and the parties shortly before the commencement of the prudence hearings, the Court rejected the rulings requested by NOPSI and indicated that its prior rulings were not to be used by NOPSI as a basis for its refusal to provide discovery to the Council. (Tr. 1897.) On October 28, 1986, after the Council filed a new motion to dismiss based on the final decision in *NOPSI I*, NOPSI filed a First Supplemental and Amended Complaint. NOPSI no longer sought to bar the Council from conducting a prudence inquiry. Rather, it sought an injunction which would bar the Council "from entering an order . . . as a result of the 'prudence' investigation . . . which would have the effect of 'trapping costs', that is, compelling NOPSI or its shareholders to absorb all or part of the costs allocated to NOPSI" by the FERC. This was an apparent attempt to shield NOPSI in advance from any monetary penalty even if imprudence were found and regardless of the facts developed. On December 19, 1986, the district court dismissed the Amended Complaint on the basis of (1) the abstention doctrine; (2) lack of ripeness; and (3) as to SERI, its lack of standing. That decision was affirmed on the ground of lack of ripeness by the Fifth Circuit on December 11, 1987, 833 F.2d 583 (5th Cir.

1987), and a petition for rehearing was denied in January 1988.

B. Efforts to Block Discovery

Throughout the course of the proceedings, NOPSI repeatedly declined to provide information and to comply with the Council's discovery requests promptly and fully.

At the outset of the prudence inquiry, NOPSI put a great premium on speed. Its complaint in *NOPSI II* alleged that the Council's conduct of a prudence inquiry might have the effect of delaying a decision on its rate application. Nevertheless, NOPSI consistently responded late and incompletely to requests for data and document production.

More important is that when NOPSI did respond, it categorically refused to produce relevant materials. As support for its refusal, NOPSI relied primarily upon language from the district court's decision in *NOPSI II*, having nothing to do with discovery.[5] NOPSI failed, for example, to produce:

- documents relating to any attempt or effort by NOPSI to negotiate arrangements for Grand Gulf other than it had agreed upon (Cain Deposition Request 8, Hurstell Deposition Request 11, McLetchie Deposition Request 11);
- documents constituting or referring to actions that NOPSI might take or has taken with respect to any financial difficulty in connection

[5] In its decision, the district court stated its view as to what the Council proposed to do in its prudence inquiry and what it proposed not to do. *NOPSI II*, Slip op. at 7-8. NOPSI asserted that this statement barred discovery of numerous matters which it claimed were outside the court's recital. In a telephone conference shortly before commencement of the hearings, the court expressly informed the parties, without addressing the overbreadth of NOPSI's assertions, that its decision was not to be taken to be a bar to discovery at all. (*See* Tr. 1897.)

with the construction or operation of Grand Gulf or NOPSI's obligations with respect to Grand Gulf (Cain Deposition Request 9, Hurstell Deposition Request 12, McLetchie Deposition Request 12);

- documents relating to any nuclear unit other than Grand Gulf I, in response to a request for all documents relating to the actual or potential effect upon ratepayers of Grand Gulf or any nuclear plant in the Middle South System constructed on or after January 1, 1974 (Cain Deposition Request 1, Hurstell Deposition Request 4);
- documents relating to any attempt, effort or suggestion within or by NOPSI or any other MSU operating company (a) to curtail the construction of Grand Gulf 1 or 2; or, (b) to accelerate it (Cain Deposition Request 2, Hurstell Deposition Request 6, McLetchie Deposition Request 5).[6]

In addition, NOPSI either refused to produce or provide answers for many of the data requests submitted by the Council's staff and consultants, or provided incomplete responses.[7] Certain documents requested during depositions,

[6] Similarly, NOPSI erroneously relied upon *American Electric Power Service Corporation*, 32 FERC ¶ 61,363 (1985)—a FERC decision having nothing to do with discovery—as a basis for objecting to other, obviously pertinent, discovery requests. *See* Cain Deposition Request 3; McLetchie Deposition Request 6 (requesting all documents related to any analyses by NOPSI on the possibility of obtaining capacity or energy from sources other than Grand Gulf in lieu of capacity or energy from Grand Gulf or any other nuclear plant).

[7] *See e.g.*, Data Request PB-1 (requesting a copy of every major study or analysis, conducted by or for NOPSI, from January 1, 1970 through the present, pertaining to the economics of construction, continued construction, and/or operation of Grand Gulf I); Data Request PB-8

and which were otherwise called for (for example, the periodic cost forecasts for Grand Gulf) were never produced at all.

NOPSI categorically refused to allow inquiry into the activities of any other company in the Middle South system, regardless of their relevance to the actions of NOPSI's own management. Nevertheless, throughout these proceedings, NOPSI has relied on a "system" defense. It has argued that the predicament in which it has found itself with respect to Grand Gulf was the result of "system" decisions for which NOPSI cannot be held accountable. When it was in its interest to do so, NOPSI proffered witnesses from other companies to testify as to actions of the "system" and to particular events involving other companies. Moreover, it submitted documents prepared by other MSU companies as well as those found in the files of a sister company.

For example, NOPSI submitted testimony of Regis Trumps, an employee of Middle South Services, Inc., and it proffered the testimony of George White, an employee of MSU, concerning the response by Middle South companies to the Three Mile Island incident.[8] NOPSI also introduced documents from sister companies, such as an

(requesting estimates of the cost to construct Grand Gulf made from the construction of the project through the present); Data Request PB-13 (requesting all estimates prepared by, or on behalf of NOPSI, after 1975, concerning the costs associated with terminating Grand Gulf).

[8] On April 14, 1986, the final day of the evidentiary hearing concerning the prudence phase of this proceeding, NOPSI sought to call George White, Jr., as a witness. No written testimony of Mr. White had previously been submitted and the offer of his testimony was contrary to the rules of practice and procedure adopted by this Council for presentation of evidence. Nonetheless, this Council agreed to accept Mr. White's testimony into the record if NOPSI agreed to comply with several conditions generally aimed at ensuring discovery of matters relevant to Mr. White's testimony. *See* Council Ltr. April 19, 1986. NOPSI refused to comply with such conditions. *See* NOPSI letters dated April 28, 1986 and May 2, 1986.

LP&L Memorandum re: Allocation of Future Generation Under System Agreement (*see* Response to Data Request PC-5), system documents such as MSU generation planning studies, (*see* Exhibits MLH-8A, MLH-8B, MLH-14), and documents it found in the files of LP&L purporting to bear on the relative economics of coal and nuclear power after the Three Mile Island incident. (Tr. 781.)

Despite its own reliance on "system" testimony and its selective use of materials from other companies, NOPSI blocked the Council's discovery of matters involving the activities of other companies in the system bearing upon matters involving NOPSI's own management.[9]

On this basis, NOPSI's counsel blocked many inquiries into meetings involving Mr. Cain and the officers of other Middle South companies, held as part of the activities of MSE. NOPSI's counsel often instructed witnesses not to answer questions concerning, *e.g.*, discussions of the MSE Board of Directors (CNO Exh. 28 at 17); communications with other operating companies, relating, for example, to the ability of ratepayers to bear the cost of Grand Gulf (*Id.* at 48); and the existence of studies relating to the possibility of cancelling or curtailing the Grand Gulf 1 or 2 projects. (*Id.* at 86.)

Similarly, NOPSI, objecting that the Council's requests inquired into management decisions of NOPSI's parent or sister corporations, refused to respond to such requests as those for:

> documents referring to need or desire of NOPSI for construction or operation of Grand Gulf or

[9] For example, during the deposition of James Cain, counsel for NOPSI stated:

> Further, I will not permit Mr. Cain to respond to any questions as to any activities, or any conduct of his in any capacity other than as president of NOPSI . . . .

(CNO Exh. 28 at 5.)

> such need or desire on the part of any of NOPSI's affiliated operating companies, or the lack of such need in each case.

(*Id.*, Document Request 10, McLetchie Deposition Request 13.)

Only just before the commencement of the actual hearings, when Judge McNamara instructed the parties that discovery was not to be limited as NOPSI contended, did NOPSI produce additional documents, but its production remained deficient. Moreover, by adopting categorically the position that it would not produce documents relating to other Middle South companies, throughout substantially all the discovery period, NOPSI successfully frustrated the efforts of the Council's expert consultants to obtain information. (Tr. 1690-1692.)

The position taken by NOPSI through the discovery phase of the prudence inquiry was wholly at odds with the common understanding of the scope of discovery held by courts and practitioners in virtually all jurisdictions. The scope of discovery is very broad. Inquiries need only be reasonably calculated to lead to evidence that may be used at a trial or hearing.

The fact that a particular substantive decision would not be a part of the Council's considerations—for example, whether NOPSI's ultimate share of Grand Gulf as determined by the FERC was proper—does not preclude or obviate inquiry into the process by which NOPSI and its sister companies went about deciding upon their original allocations. For one thing, it is indispensible background for an understanding of what happened here. For another, it could produce important insight into the views of NOPSI and its sister companies as to whether Grand Gulf was perceived as a benefit or a burden at critical points in time, when other actions might have been taken.

Similarly, questions about whether consideration was given to cancelling Grand Gulf would shed light upon

whether and when the operating companies may have appreciated the growing detriments of Grand Gulf. They would also test the representations made by NOPSI, publicly and before the Council, that Grand Gulf would be a great benefit to New Orleans' ratepayers. These and similar lines of inquiry were blocked by NOPSI's refusal to provide relevant information.

Most disturbing to the Council is the implausible paucity of documents produced by NOPSI relating to Grand Gulf. Despite the fact that this was a project of unprecedented magnitude for which NOPSI had assumed a major commitment, there are few intercompany and nearly no intracompany memoranda produced by NOPSI relating to Grand Gulf. For example, none of the notes or agendas relating to the meetings of the MSE board or of the Middle South Operating Committee ("MSOC"), or among NOPSI personnel, seem to have survived; if they did they were not produced. As another example, the Three Mile Island incident portended a major impact on nuclear plant costs; but there were no memoranda dealing with the effect, or lack thereof, on the Grand Gulf project, authored by NOPSI personnel or by others in the "system," in NOPSI's files. As another example, the process by which NOPSI ultimately decided to take, or was given, a 29.8 percent share of Grand Gulf I must have been of great importance and concern; yet no NOPSI memoranda were produced relating to it either. Given the usual and expectable practices of business management, there are serious and unsettling questions generated by the dearth of production of such documents.

C. Due Process Issues

NOPSI has asserted that this proceeding is "fraught with arbitrary and capricious actions by the Council expressly calculated to deny NOPSI its right to a fair and complete hearing." (NOPSI Br. at 16.) In view of NOPSI's attempt to disrupt the ratemaking proceedings, to prevent

a prudence inquiry, and to block discovery of its managements' actions, its charges of procedural detriment would seem to be diametrically misdirected.

NOPSI's assertions rest principally upon two matters. First, NOPSI argues that the Council failed to allow NOPSI sufficient time within which to prepare its rebuttal case in phase one of the proceedings. Second, it claims that the Council's unwillingness to accept the testimony, offered by NOPSI out-of-time, of a proposed surrebuttal witness—unless NOPSI's first provided discovery relating to the subject matter of his testimony—violated its rights to due process.

By way of background, the Council has, from the outset, been committed to a prompt resolution of NOPSI's retail rate application, as indicated by the expeditious treatment given to its application for interim relief and other matters. During the main part of the rate case NOPSI stressed its interest in a speedy resolution, particularly prior to the settlement that allowed certain increased rates to go into effect. Judge McNamara had also expressed strong interest at that time in the Council's acting promptly.

After settlement of the retail rate proceeding and the grant of rate relief, NOPSI's interest in a speedy resolution of the prudence investigation became less than clear. At times, NOPSI appeared as willing to have the prudence proceeding deferred. At other times it appeared desirous of concluding it promptly. The Council acted on an expedited schedule to accommodate NOPSI's professed interest in a speedy resolution. All participants in these proceedings were forced to comply with tight time schedules. While NOPSI claims that it had too brief a time within which to prepare its rebuttal testimony, the attorneys for the Council had an even shorter period of time in which to obtain discovery as to this testimony, which included that of two entirely new expert witnesses, as well as new testimony from three other witnesses.

However, the twelve day period for preparation of rebuttal testimony, which NOPSI deems too short, clearly appears to have resulted, at the worst, in inconvenience and certainly not in actual detriment. NOPSI filed detailed and extensive rebuttal testimony, now part of the record. Until NOPSI proffered the testimony of George White at the close of the hearings, there was no occasion on which NOPSI claimed that it had not been able to prepare testimony, and it never pointed to any specific matter as to which it was deprived of an opportunity to develop evidence.

We should add that a right to procedural due process does not include a right to file prepared written rebuttal testimony. Due process requires that a party whose rights are to be adjudicated be given a meaningful opportunity to be heard in a meaningful way. *See Goss v. Lopez*, 419 U.S. 565, 581 (1975). NOPSI was clearly given an opportunity to present its position as part of its direct and rebuttal cases, to present and rebut evidence, to depose and cross-examine witnesses testifying on behalf of the Council, and to participate in a full and fair hearing.

NOPSI also claims that it experienced "difficulty in obtaining a fair hearing" in connection with its attempt to call two surrebuttal witnesses on the last day of the hearing. One was Regis Trumps, who had submitted two volumes of direct and rebuttal prepared testimony, as well as oral testimony at the hearing. The matters as to which he was to testify as a surrebuttal witness were cumulative. (*See* Tr. 1881-82, 1889.) NOPSI's offer of Mr. Trumps was properly rejected by the Hearing Examiner. (Tr. 1886.)

The other proposed witness was George White, Jr., an employee of Middle South Utilities, Inc. He was offered to testify on surrebuttal as to certain matters concerning the response of MSU and the "system" to the Three Mile Island incident, certain information said to have been given to the board of directors of MSE and related matters.

Subsequently, the Council received from NOPSI's attorneys, pursuant to their letter dated April 16, 1986, a volume entitled "Proffered Testimony of George White, Jr."[10] No written testimony of Mr. White had previously been submitted by NOPSI, and the offer of his testimony was well out of time and otherwise contrary to the rules and procedures adopted for the conduct of the hearings, as was conceded by NOPSI's counsel. (Tr. 1901.) While NOPSI claimed that Mr. White's testimony would address matters first raised by the Council's witnesses during the hearing, this was not so. The matter involved—the utility's response to the Three Mile Island incident—had been put in issue since at least December, 1985 during the deposition of Mr. Cain (*see, e.g.*, CNO Exh. 28 at 71-76) and in January 1986 during the deposition of Mr. Hurstell (*see, e.g.*, CNO Exh. 29 at 665-686).

Instead, NOPSI's offer of Mr. White's testimony brought into sharp focus NOPSI's strategy, highly prejudicial to the Council, of refusing to allow discovery as to important matters involving other Middle South companies, while, at the same time, offering such material and related witnesses when to do so suited NOPSI's purposes. (*See* Tr. 1981-1900.) Although the Council would have been justified in refusing NOPSI's offer outright, instead, by a letter dated April 22, 1986, we granted NOPSI's request to provide an additional hearing date to hear the testimony of Mr. White, on the condition that it provide documentary discovery, to be followed by discovery by oral examination, of matters pertinent to the subject matter of such testimony.[11]

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[10] If Mr. White's formal testimony had been in substance as set forth in the document mentioned in text, it would have denigrated the impact of the Three Mile Island incident on the basis of selective treatment of certain technical issues.

[11] The Council also made it a condition that the Council's attorneys have the right to present rebuttal testimony if desired, and that NOPSI make available witnesses to authenticate two documents emanating from companies in the Middle South system.

NOPSI rejected that proposal and, by letter dated April 28, 1986, insisted that the prepared text of Mr. White's proffered testimony be accepted "as evidence," without any discovery relating to its subject matter, or apparently any cross-examination. Moreover, NOPSI claimed that the reason that Mr. White's testimony had not earlier been offered was that "it had too little time in which to prepare its rebuttal testimony." The record shows that there is no substance in this assertion. NOPSI's offer of Mr. White came about because the Hearing Examiner had properly rejected NOPSI's offer of certain self-serving material in the 1979 Annual Report of MSU (NOPSI Exh. 42) as substantive evidence of the "system's" response to the Three Mile Island incident—an area as to which NOPSI had refused to provide discovery. Thereafter, on the last hearing day, April 14, NOPSI's counsel first offered Mr. White as a witness, giving as the reason the desire to satisfy the evidentiary objections to said NOPSI Exhibit 42. At no prior time did NOPSI suggest to the Council or the hearing officer that it wanted to call Mr. White as a witness, but had inadequate time in which to prepare his testimony. The Council, by letter dated April 30, 1986, responded to NOPSI's refusal to provide discovery and its demand that the written testimony of Mr. White be accepted "as evidence," stating in part,

> "We categorically reject the idea that NOPSI may enjoy the special privilege of offering witnesses and preparing subject matters for introduction into evidence without giving an opportunity to test their truth and significance through discovery and examination."

Such determination is hereby reaffirmed, and the "due process" objections of NOPSI are rejected as without substance.[12]

IV. LEGAL STANDARDS IN THESE PROCEEDINGS

A. The Purpose of and the Standards Governing This Prudence Investigation

Our inquiry into the prudence of NOPSI's conduct at the retail level with respect to Grand Gulf is based upon the longstanding principle that costs may be passed onto ratepayers only to the extent that they have been prudently incurred. *See Missouri ex rel. Southwestern Bell Telephone Co. v. Public Service Commission*, 262 U.S. 276 (1923). The contemporary role of the prudence doctrine has been described as follows:[13]

> The concept of a prudent investment in public utility law is a regulatory oversight standard that attempts to serve as a legal basis for judging whether utilities meet their public interest obligations. . . .
>
> • • •
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> . . . .State commissioners today are pulled between the obligation to keep utilities financially sound and able to provide reliable service to customers and the obligation to set rates at a level reasonably related to the costs of providing service. They have been forced to choose between these two obligations where large investment values are at stake and where commission action exposes either stockholders or ratepayers to severe financial losses. The concept of prudence provides commissions with a principle that does not necessarily require an "all or nothing" decision in favor of one side, but can allow some sharing of the risks between investors and ratepayers. The prudent investment test is a tool that regulators are using to provide an answer to the question of who should bear which risks and associated costs.

[12] Copies of the foregoing correspondence shall be considered part of the record of this proceeding.

[13] Burns, Poling, Whitman and Kelly, *The Prudent Investment Test in the 1980s*. The National Regulatory Research Institute, 1985, pp. iv, vi.

In the last several years, the construction of nuclear generating plants has given occasion for the conduct of prudence investigations, which have, in notable cases, resulted in substantial cost disallowances. For example:

- The New York Public Service Commission, after investigating the prudence of LILCO's management and construction of the Shoreham Nuclear Plant, disallowed $1.395 billion of the $4.5 billion costs of Shoreham.[14]
- The Missouri Public Service Commission, after investigating Union Electric's prudence with respect to the 84% share of the Callaway plant within its jurisdiction, disallowed $384 million of the $2.5 billion in Callaway costs for which Union Electric had sought recovery.[15]
- The Missouri Public Service Commission, finding, *inter alia*, that a significant portion of the cost

[14] Case 27563 (*Long Island Lighting Company - Phase II - Proceeding on Motion of the Commission to Investigate the Cost of Construction of the Shoreham Nuclear Generating Facility*) Opinion No. 85-23 (issued Dec. 16, 1985) ("*Shoreham*").

[15] *In the Matter of the Determination of In-Service Criteria for the Union Electric Company's Callaway Nuclear Plant and Callaway Rate Case and Related Issues*, Case No. EO-85-17 (MoPSC March 1985) ("*Callaway*").

overruns at the Wolf Creek nuclear plant resulted from unreasonable or unexplained cost increases and inefficient or imprudent management of the project, disallowed approximately $126 million (14%) of Kansas City Power & Light Company's portion of the plant under Missouri jurisdiction.[16]

- The Michigan Public Service Commission, based primarily on the imprudent delay in the plant's completion, disallowed $122.9 million of the $1.925 billion Detroit Edison spent on its Belle River coal plant.[17]

- The Maine Public Utilities Commission, after investigating the prudence of the investments of Maine utilities in the Seabrook nuclear power project, entered into a rate case settlement with Central Maine Power Co. whereby Central Maine Power Co. agreed that 40%, or $14.8 million, of its Seabrook-2 construction costs would not be recovered, as well as 30%, or $63.9 million of the Seabrook-1 construction expenses incurred before January 1, 1985.[18]

- The Public Utilities Commission of Ohio recently disallowed for ratemaking purposes $627.8 million

[16] *In the Matter of Kansas City Power & Light Company of Kansas City, Missouri, for Authority to File Tariffs Increasing Rates for Electrical Service Provided to Customers in the Missouri Service Area of the Company, and the Determination of In-Service Criteria for Kansas City Power & Light's Wolf Creek Generating Station and Wolf Creek Rate Base and Related issues*, Case No. EO-85-185 (MoPSC, April 23, 1986).

[17] *In the Matter of the Application of Detroit Edison Company for Authority to Amend Its Rate Schedules Governing the Supply of Electric Energy and Amend Other Miscellaneous Rates*, Case No. U-7660 (MoPSC, July 16, 1985).

[18] *Central Maine Power Co.*, Case 84-120, Order and Stipulation, (MePUC May 30, 1985).

of the cost of building the $5.5 billion Perry nuclear power plant owned by Centerior Energy Corp., Ohio Edison Co., and Duquense Light Co. as imprudently or unreasonably incurred.[19]

A prudence review is an appropriate function of the ratemaking authority and has been undertaken where, as here, the utility's actions have resulted in extraordinary costs that raise the clear prospect of actual harm to the ratepaying community and are clearly out of line with competing sources of generation.

1. Standard of Prudence

The standard of prudence to be applied in reviewing the evidence is not in serious dispute. Experts testifying on both sides of this case have agreed that the standard should be that of "reasonableness under the circumstances."[20] NOPSI stated the standard of prudence to be:

> whether the utility followed a course of conduct that a capably managed utility would have followed in light of existing and reasonably knowable circumstances.

In re Seabrook Involvements by Maine Util., 67 P.U.R. 4th 161, 166 (Maine 1985) ("*Seabrook*"). NOPSI Memo Re Item VII at 3-4. Augmenting this formulation, we believe the standard should be:

> The Company's conduct should be judged by asking whether the conduct was reasonable at the time, under all the circumstances, considering that the Company had to solve its problems prospectively rather than in reliance on hindsight. In effect, our respon-

[19] *Wall Street Journal*, Jan. 13, 1988, p. 36.

[20] (*See* NOPSI Br. at 19; CNO Exh. 31 at 5;) Memorandum Submitted By NOPSI in Response to Item VII of City Council Resolution R-85-636, at 3-4 (December 16, 1985) ("NOPSI Memo Re Item VII"); (NOPSI Exh. 46 at 3) (December 13, 1985).

> sibility is to determine how reasonable, competent management would have performed given the circumstances that confronted the company.

In substance, this standard has been applied in prudence investigations by the New York Public Service Commission,[21] the Missouri Public Service Commission,[22] the Washington Utilities and Transportation Committee,[23] and the Massachusetts Department of Public Utilities.[24] In addition, the Federal Energy Regulatory Commission ("FERC") has adopted the same standard of prudence.[25]

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[21] *Shoreham*, Slip op. at 9.

[22] *Callaway*, Slip op. at 12.

[23] *See Washington Utilities and Transportation Committee v. Puget Sound Power & Light*, 62 P.U.R. 4th 557, 584 (WUTC 1984) (the following test was applied to measure prudence: what would a reasonable board of directors and company management have decided given what they knew or reasonably should have known to be true at the time they made a decision.)

[24] *See also Fitchburg Gas & Electric Light Company*, D.P.U. 84-145-A (Mass. 1985) and *Boston Edison Company*, D.P.U. 906 (Mass. 1981) (prudence is defined as the utility management's having made a reasonable decision based on what it knew or should have known at the time of the decision.)

[25] *See New England Power Company*, 31 FERC ¶ 61,047 at 61,084 (1985) where the FERC stated:

> In performing our duty to determine the prudence of specific costs, the appropriate test to be used is whether they are costs which a reasonable utility management (or that of another jurisdictional entity) would have made, in good faith, under the same circumstances, and at the relevant point in time. We note that while in hindsight it may be clear that a management decision was wrong, our task is to review the prudence of the utility's actions and the costs resulting therefrom based on the particular circumstances existing either at the time the challenged costs were actually incurred, or the time the utility became committed to incur those expenses.

NOPSI has asserted[26] that the following "well accepted guidelines" must be followed in applying the reasonableness standard of prudence:

1. there should exist a rebuttable presumption that the questioned decision of the utility is prudent;
2. a utility decision should be judged under the circumstances that were known or should reasonably have been known when the decision was made;
3. hindsight should not be used in determining prudence; and,
4. prudence should be determined in a retrospective, factual inquiry—looking to the circumstances when the decision was made.

We believe that these guidelines are embodied in the standard of prudence we have adopted, and we therefore have followed such guidelines in reaching our decision. (We discuss below the circumstances under which the presumption of prudence may be rebutted.) In addition, in general accord with other local regulators,[27] we have also considered the following factors in our determination of NOPSI's prudence:

- Senior utility executives are expected to possess a high degree of management expertise, and where their position so requires, financial and technical expertise as well.
- While the prevailing practice of the utility industry is relevant, it is not determinative, since the practice may be the result of self-interest

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[26] *See* NOPSI Memo Re Item VII (at p. 3-4).

[27] Both the New York Public Service Commission in *Shoreham* and the Maine Public Utilities Commission in *Seabrook* considered these factors in their respective prudence inquiries. *See Shoreham* Slip op. at 12, 14; *Seabrook* at 166-167.

and may not be prudent in respect to the obligations that the utility is bound to fulfill. Industry norms may be an indication of whether the company's responses to its problems were reasonable at the time. The decisions of utility executives must also be reasonable when viewed against the decisions and conduct of other corporations that make investment decisions of a comparable size and complexity and other relevant facts.

- The size and nature of the project being reviewed must be considered. Thus, greater care should be exercised where the magnitude of the investment is in the hundreds of millions or billions of dollars than when lesser businesses or responsibilities are involved.
- Prudent management requires an ongoing review of project expenditures, an obligation to seek out relevant information and continuing action in response to changing circumstances.
- Management has an obligation to comply with legal requirements, including its obligation as a utility to provide reliable electric service at economic rates.

Finally, we note NOPSI's statement that then Councilman Barthelemy articulated the "correct standard to be applied in this matter" when he stated, in an affidavit, that the Council has an obligation to ensure that NOPSI's rate payers are not forced to bear costs "incurred imprudently by the utility as a result of mismanagement or gross neglect . . . ." Affidavit of S. J. Barthelemy, *Middle South Energy, Inc. v. The Council of the City of New Orleans*, at 3, Civil Action No. 85-5273 (E.D. La. Dec. 5, 1985). We view the term "mismanagement" as synonymous with the failure to act reasonably under the circumstances, for example, by a marked failure to meet one or more of the

relevant factors noted above. While costs resulting from "gross neglect" by utility management certainly should not be passed on to ratepayers, a finding of imprudence is not, of course, dependent upon a finding of gross neglect. Ratepayers are entitled by law to a higher standard of performance by utility management than the mere avoidance of gross neglect.

2. Burden of Proof

In a normal rate case, the utility must prove that its rates are just, reasonable and nondiscriminatory. There is some dispute as to whether a utility bears the burden of proving, in its case-in-chief, that all decisions and expenditures were prudent.[28] Here, we will follow the FERC's position that there is a rebuttable presumption that the company's decisions and expenditures were prudent.[29] Thus, when NOPSI filed its request for Grand Gulf related rate relief, there existed a presumption that NOPSI's Grand Gulf related decisions and expenditures were prudent.

This presumption of prudence may, however, be rebutted and the burden of proof returned to the proponent of

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[28] A presumption of prudence has been generally upheld by the FERC and apparently is derived from Justice Brandeis' concurrence in *State of Missouri ex rel. Southwestern Bell Telephone Co.*, 262 U.S. 276, 289 (1923) wherein he stated:

> Every investment may be assumed to have been made in the exercise of reasonable judgment unless the contrary is shown.

However, in *Shoreham* the New York Public Service Commission, noting that the Public Service Law imposes on the utility the burden of proof in a rate proceeding, stated that the company bears that burden in a prudence inquiry as well, where the regulatory body is attempting to identify the costs that may properly be included in rates. *Shoreham* at 6.

[29] *See New England Power Co.*, 31 FERC ¶ 61,047, 61,081-61,082 (1985); *Commonwealth Edison Company*, 27 FERC ¶ 63,072, 65,269 (1984).

the rate increase. According to the FERC, "where some other participant in the proceeding creates a serious doubt as to the prudence of an expenditure, then the applicant has the burden of dispelling these doubts and proving the questioned expenditure to have been prudent." *Minnesota Power & Light Company*, 11 FERC ¶ 61,312, 61,645 (1980). "A 'doubt' is created if the challenge raises a question, the answer to which, is not unarguably in favor of prudence. Moreover, a doubt is 'serious' if there appears at least a possibility that, upon due investigation, the answer to the question will lead to a finding against prudence." *New England Power Company*, 27 FERC ¶ 63,037, 65,157 (Nacy A.L.J. 1984) *rev'd on other grounds*, 31 FERC ¶ 61,047 (1985).

Even before the introduction of testimony by attorneys for the Council, the facts and circumstances surrounding NOPSI's involvement in Grand Gulf, apparent at the time the Council initiated this prudence investigation by adopting Resolution No. R-85-636, created serious doubt as to whether NOPSI's conduct was prudent. Specifically, Resolution No. R-85-636 noted, *inter alia*, that:

- NOPSI entered into a series of open-ended agreements whereby it guaranteed the indebtedness of MSE for construction of Grand Gulf and assumed responsibility for Grand Gulf capacity and power, without restrictions on the ultimate cost of the plant and without limits on NOPSI's cost responsibility;
- At a time when the cost of Grand Gulf already had greatly exceeded prior cost estimates, NOPSI agreed to a very large share—subsequently determined to have been excessive by the FERC—and to relieve AP&L of its share;
- NOPSI failed to diversify its fuel sources and relied heavily upon a single nuclear power project to satisfy its projected energy needs; and

- Despite escalating Grand Gulf cost overruns and despite NOPSI's assurance to the Council that the Company could sell Grand Gulf power to other entities, NOPSI made no apparent attempt to reduce its risks.

In addition, the enormity of the cost overruns experienced in the construction of Grand Gulf and the potentially disastrous impact these posed for the ratepaying public raised a serious issue regarding the prudence of NOPSI's planning and management conduct. In October 1975, Grand Gulf I was projected to cost $875 million and to be completed by January 1980. The plant actually entered commercial operation in July 1985 at a cost of $3.3 billion for MSE's 90 percent share. The Missouri Public Service Commission, in its investigation of the prudence of the Callaway Nuclear Plant, stated that "the existence of $2 billion in cost overruns raises doubts as to prudence in this case."[30]

However, the foregoing circumstances do not stand alone. There was direct expert testimony in this case that NOPSI had acted imprudently. The testimony of NOPSI's own witnesses established that NOPSI failed to develop any internal organization to deal with its responsibility to maintain oversight of its Grand Gulf obligations, failed even to hold meetings on important issues, failed to examine critically information being received as to costs, failed to obtain necessary information, failed to keep abreast of available analytical techniques, failed to explore alternatives, did not even know what its rights were within the Middle South System, and ultimately accepted, and did nothing to reduce the risks of, a large fixed share of an unfinished nuclear plant that the FERC, prior to the commencement of this proceeding, found to be approximately *70 percent higher* than the share that would have been

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[30] *Callaway*, Slip op. at 12.

fair. These circumstances create, by any standard, grave doubts as to whether NOPSI's management engaged in prudent conduct, and such management certainly should bear the burden of proving that it did so.

On most issues, however, allocation of the burden of proof does not play a determinative role. Both sides came forward with evidence on the matters in issue. The findings made herein principally reflect both undisputed facts and the clear weight of the evidence, and rarely rely upon NOPSI's bearing the burden of proof.

B. Federal Preemption

The remaining legal issue to be addressed is that of federal preemption. Throughout this prudence investigation, NOPSI has challenged, on the grounds of federal preemption, the Council's authority to conduct a prudence investigation into NOPSI's involvement in Grand Gulf. The central thesis of NOPSI's argument is that the FERC, in Opinion Nos. 234 and 234-A, allocated the costs and power of Grand Gulf I, thereby determining such Grand Gulf costs to be just and reasonable. Hence, it argues, inquiry into NOPSI's prudence, with the potential for the disallowance of a portion of the costs of Grand Gulf, would "frustrate" or "stand as an obstacle" to the Federal Power Act and Opinion Nos. 234 and 234-A. In addition, NOPSI has argued that our investigation impermissibly interferes with interstate commerce.

We note at the outset that neither the purpose nor the effect of this prudence investigation is to interfere with interstate commerce. NOPSI had argued that the effect of any rate disallowance in this proceeding would be to shift costs to other states in violation of the commerce clause of the U.S. Constitution.

Without expressing our view as to whether a shifting of costs, even for legitimate reasons, would be constitutionally permissible, it is clear here that there is no im-

permissible burden on interstate commerce. Prior to the conclusion of the rate case here, every other operating company on the Middle South System had entered into a settlement with its respective regulatory authority that involved rate "phase-ins" (that is, the costs of Grand Gulf I would not be fully passed through as incurred, but at later dates) and, in the case of the two largest operating companies, permanent "absorptions" (that is, a portion of the costs would never be passed through to ratepayers).[31]

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[31] The settlement between AP&L and the Arkansas Public Service Commission requires AP&L to forego recovery of approximately 20 percent of its Grand Gulf costs and states:

> The proportionate reductions in revenues from AP&L's Arkansas retail customers under this paragraph will be permanent and will never be recovered from AP&L's Arkansas retail customers (except to the limited extent provided elsewhere in the settlement).

AP&L also agreed to defer recovery of large portions of its remaining Grand Gulf costs (41 percent in the first year) for collection after the year 1995. *Arkansas Power and Light Company*, Docket No. 84-249-U, Order No. 26 (APSC, Sept. 9, 1985).

The Mississippi Public Service Commission on September 16, 1985 issued an order deferring recovery of approximately one-third of MP&L's share of Grand Gulf I from its retail customers for the ten-year period 1985-1995. Remaining amounts were ordered to be phased-in over a three year period starting in 1985. *Mississippi Power and Light Co.*, Docket No. U-4620, (MPSC, Sept. 16, 1985) (Slip op. at 3). The MPSC order was issued subsequent to the completion of an investigation into the costs of, and MP&L's "performance" in relation to, Grand Gulf. Decision Management Company, Inc., *Grand Gulf Construction Audit*, April, 1985. (CNO Exh. 29, MLH - 19A & B).

On October 15 and 16, 1985, the LPSC held hearings on the adequacy of a report it had commissioned in 1983 concerning, *inter alia*, the prudence of LP&L in regard to Grand Gulf. Decision Management Company, Inc., *A Report on Waterford 3/Grand Gulf Study*, January, 1984. The LPSC announced its intention to conduct an expanded prudence review. However, on November 19, 1985, LP&L and the LPSC reached a settlement whereby LP&L agreed to absorb 18 percent of

It was not suggested by NOPSI that the result of these phase-ins and absorptions would be to "shift" burdens to the ratepayers of New Orleans. Moreover, the testimony of NOPSI's own president here established that rate absorption in one jurisdiction did not shift costs to those in other jurisdictions or otherwise have impermissible adverse interstate effects. (CNO Exh. 28 at 125-131.)

Turning to the requirement that the Council recognize the FERC's establishment of a wholesale rate, it should be noted at the outset that in our Prudence Resolution, we expressly stated that "[t]he Council will not seek to invalidate any of the agreements surrounding Grand Gulf I or to order NOPSI to pay MSE a rate other than that approved by the FERC." *See* Resolution R-85-636 at 4. Our purpose is, instead, to review the prudence of the management of NOPSI—a utility operating under a franchise granted by this City—as to the actions it took and could have taken, so as to ensure that only prudently incurred costs are passed on to New Orleans' consumers in their local electric rates.

The issue before the FERC was that of establishing a "method of allocation"—that is a "formula" for the sharing of the power generation costs of Grand Gulf I among the four Middle South operating companies. Ultimately, all the Middle South operating companies, as well as other parties, became involved in an interstate dispute as to what formula should be used to determine individual company responsibility for Grand Gulf I costs as wholesale power rates.[32] In Opinion Nos. 234 and 234-A, the FERC chose a formula that allocated the investment costs of all nuclear, but not other, facilities according to each com-

its Grand Gulf I costs. *Louisiana Public Service Co.*, Order No. U-16945 (LPSC, Nov. 14, 1985).

[32] *See Middle South Energy, Inc.*, 26 FERC ¶ 63,044 at 65,097, 65,104 (1984) (Initial Decision); 31 FERC ¶ 61,305 at 61,634, 61,635 (Opinion No. 234).

pany's demand. 31 FERC ¶ 61,305 at 61,655. Wholesale rates—representing the formula-generated share of the aggregate of Grand Gulf costs—were set for each of the operating companies. (The FERC's substantive allocation, as previously indicated, was reversed and remanded by the Court of Appeals for the District of Columbia Circuit, and thereafter was reaffirmed by the FERC.)

The FERC did not purport to assert jurisdiction over the retail rates to be charged by the operating companies to their local customers, did not presume to preempt the function of the state retail regulatory bodies, did not deal with the problem of "rate shock", did not address the timing or manner in which, or extent to which, the operating companies may recover Grand Gulf-related costs from their customers, did not examine the alternatives available to a company to reduce the risks of its Grand Gulf cost responsibility, and did not examine the prudence of NOPSI's activities, or those of any other operating company, with respect to Grand Gulf.

At the Grand Gulf cost allocation hearings at the FERC, Presiding Judge refused to be drawn into making indirect or implied rulings on prudence:

> MR. MERRIMAN:
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> • • •
>
> Now, Middle South Energy is exclusively subject to the jurisdiction of the FERC. It is a 100 percent wholesaler. We don't want somebody later someplace to say that therefore the costs involved in that construction were somehow unjust and unreasonable because you did something wrong.
>
> PRESIDING JUDGE: Okay.
>
> But I can't preclude parties here from somewhere else raising anything they want to raise. And the only thing that I'm concerned about is what mat-

> ters I should decide. And the only thing that I'm concerned about is what matters I should decide. And as far as I can see I don't have to decide the issue of the prudence of the construction—of the decision to construct the Grand Gulf project.

Middle South Energy, Inc., Docket No. ER82-616-000, Transcript of Proceedings, March 14, 1983, at 235-36.

The Presiding Judge was clear that the prudence of the individual MSU companies as *purchasers* of Grand Gulf power should not be a part of his determination:

> MR. O'SULLIVAN: I just wanted to make sure that there was no confusion between the prudence inquiries that I understand you ruled this morning *the states were entitled to make.*
>
> That is, *the prudence of the affiliates* under the jurisdiction of the states making a purchase of Grand Gulf power for purposes of retail resale, and that that issue is not stipulated, the buyers is not stipulated to.
>
> PRESIDING JUDGE: *I'm not getting into that* I don't think in this case.
>
> MR. MERRIMAN: He's not saying one way or the other what the jurisdiction of the state commissions are.
>
> PRESIDING JUDGE: *I'm not getting into that.*

Id. at 228 (Emphasis added.)

At the close of the relevant dialogue, the Presiding Judge said to Mr. Merriman:

> PRESIDING JUDGE: *I don't think you can put me in a position or this Commission in a position of deciding a prudency issue on the allocation issue in such a way that no one can possibly raise*

> *this in the State Court.* I think that's the problem you have. I may be wrong.
>
> I don't intend to get into state jurisdiction, but I do intend to get into what a fair and just and reasonable and non-discriminatory rate schedule and agreement is.
>
> MR. EASTLAND: *Wholesale* level.
>
> PRESIDING JUDGE: At the *wholesale* level.

Id. at 248. (Emphasis added.)

In its Opinion Nos. 234 and 234-A, the FERC acknowledged the traditional role of the states in retail ratemaking regulation:

> [W]e concurred in [Judge Head's] discussion of the need to balance Federal and states interests in exercising our jurisdiction. Furthermore, we think our opinion, taken as a whole, as well as Judge Head's discussion, which we adopted, clearly recognize the role of the states in regulating the retail electric rates and the need to balance overlapping state and Federal electric rate jurisdiction.

Middle South Energy, Inc., 31 FERC ¶ 61,305 (1985) at p. 61,951. The FERC concluded:

> The basic nature of regulatory control retained by the states under previous System agreements remains unchanged. What our decision attempts to do is amend the filed agreements to achieve a non-discriminatory sharing of excess capacity cost imbalances on the integrated System, consisted with the goal of the System Agreement, and to do so with as little intrusion on the States as possible.

Id. at p. 61,952.

In March 1986, the FERC's acting Chairman Sousa, testifying before Congress on behalf of the FERC, stated as follows:

> The Commission did not determine the prudence of the purchase of power by the Middle South Utilities from the Grand Gulf Nuclear Generating Station in Opinion Nos. 234 and 234-A.
>
> At issue in Opinion Nos. 234 and 234-A were the narrower questions of whether the proposed Middle South System Agreement and Grand Gulf Unit Power Sales Agreement allocated the costs of generation and transmission on the Middle South system among its members in a manner that was just, reasonable, not unduly discriminatory or preferential. The proceeding was not one in which the operating utilities attempted to pass through the actual costs associated with the Grand Gulf plant as purchased power expenses in rates charged to their customers.[33]

In contrast to the FERC proceedings, this prudence investigation addresses questions that arise at the retail ratemaking level, and particularly whether NOPSI's management acted prudently with respect to its Grand Gulf participation and the alternatives available to NOPSI's management in this regard. Were we to adopt a different allocation formula as the basis for retail rates than that adopted by the FERC for wholesale rates, such an action would certainly be in derogation of the FERC's authority and violate the Supremacy Clause of the Constitution. *Nantahala Power & Light Co. v. Thornburg*, 106 S. Ct. 2349 (1986). But we do not do so. The inquiry here

[33] Prepared Testimony of the FERC Before Subcommittee on Energy, Conservation and Power, of the House of Representatives Committee on Energy and Commerce, Hearings on Prudence Review (March 1986) Question 11.

falls within the area reserved by *Nantahala*—*i.e.*, whether there were alternatives by which NOPSI could have curtailed its costs and risks with respect to Grand Gulf. Moreover, there was no independent issue of the prudence of management in the *Nantahala* case as, in contrast, there is here.

The investigation of management's prudence in connection with the setting of retail rates is, as recognized by Congress in the Federal Power Act, by the FERC and by the courts, within the jurisdiction of local regulatory entities.[34] The FERC has noted that local regulators retain jurisdiction to review the prudence, from the standpoint of the purchasing utility, of wholesale transactions approved by FERC. In *Southern Company Services, Inc.*, 26 FERC ¶ 61,360 (1984), the FERC stated:

> [T]he question of the prudence of a utility's power purchases is properly an issue in the buying utility's rate case where it seeks to pass the cost of its purchased power on to its ratepayers.

26 FERC at 61,795. *See also Pennsylvania Power & Light Co.*,, 23 FERC ¶ 61,005 (1983); *Philadelphia Electric Co.*, 15 FERC ¶ 61,264 (1981).

Similarly, judicial review of NOPSI's challenges has reaffirmed our authority to conduct this prudence investigation. In dismissing, on jurisdictional grounds, NOPSI's challenge to this Council's prudence investigation in *NOPSI II*, Judge McNamara stated:

> The issue which is involved here pertains to whether or not NOPSI, one of the utility com-

[34] *See Appeal of Sinclair Machine Products, Inc.*, 498 A.2d 696 (N.H. 1985); *Cambridge Electric Light Co.*, Docket No. 84-2B-2 (Mass. D.P.U. May 10, 1984), *appeal docketed*, No. 84-161 (Sup. Ct. Mass., filed May 24, 1984) (Stipulation of Dismissal, Nov. 21, 1985). *Pike County Light & Power Co. v. Pennsylvania Public Utility Commission*, 77 Pa. Commw. 268, 465 A.2d 735 (1983).

> panies that is required to purchase certain power from Grand Gulf as prescribed by the FERC, may be ultimately required to absorb a portion of that cost *if* a prudence investigation by the regulatory authority reflects that the management of NOPSI, *not* the management of the parent or sister corporations, acted imprudently in taking or failing to take certain actions. It is important to note that the FERC opinions are devoid of any proscriptions against local regulatory authority undertaking prudence inquiries. . . . In sum, after reviewing the FERC's opinions and the Council's Resolution, this court has concluded that the Council's prudence investigation does not breach any duty imposed by the FERC's opinions nor does it violate any of their provisions.[35]

Similarly, in addressing NOPSI's contention that the Council's prudence investigation impermissibly interfered with interstate commerce, the court observed:

> No matter what the Council ultimately decides after investigating NOPSI's prudence, the fact remains that NOPSI will still be required to pay its 17 percent allocation as mandated by the FERC. The only question will be whether the cost of that allocation will come entirely from the ratepayer or whether it will be borne in part by the ownership of NOPSI. Consequently, the Council's prudence inquiry has no, and implicates no, interference with interstate commerce.[36]

On the appeal of *NOPSI I*, the Court of Appeals, despite express requests of NOPSI to do so, specifically declined

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[35] *Middle South Energy, Inc. v. The Council of the City of New Orleans*, Civ. Action No. 85-5273 (E.D. La. Dec. 11, 1985), ("*NOPSI II*"), slip op. at 7.

[36] *NOPSI II* at 8.

to hold that the Council's regulatory activities were preempted. Rather, the court noted that the cases upon which NOPSI principally relied did not support any immediate pass through of costs to retail ratepayers:

> However, we do not decide, as NOPSI contends we must, whether NOPSI will prevail in its preemption claim. Achieving federal jurisdiction does not guarantee success on the merits of a claim. *See Montana-Dakota*, 341 U.S. at 249. We therefore do not determine whether the Council must immediately pass through NOPSI's costs. Indeed, the *Narragansett* case, on which NOPSI so heavily relies, did not itself require immediate pass through of costs to retail ratepayers. . . .[37]

The Fifth Circuit also refused to adopt any of the FERC's contentions, submitted as *amicus curiae* in *NOPSI I* (but not stated in Opinions 234 or 234-A) that it had preempted state ratemaking functions as a matter of law.

In *NOPSI II*, the Fifth Circuit again made clear that the *Nantahala* case left retail-level considerations open for state action. 833 F.2d at 586.

In light of the facts developed during this investigation, which form the basis for our decision here, we think that our authority to act has not been, and could not properly be, preempted by the FERC, given the dual regulatory authority established by Congress in the Federal Power Act. *See* 798 F.2d 860.

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[37] *NOPSI I*, 782 F.2d at 1242.

PART B. DETAILED PRUDENCE ANALYSIS

V. STATEMENT OF FACTS

A. The Middle South System

1. Overview[28]

NOPSI is a wholly-owned subsidiary of MSU and provides electric service within the municipal boundaries of the City of New Orleans pursuant to its franchise with the City. NOPSI is a member of the "Middle South System," which includes, *inter alia*, four electric operating company subsidiaries of MSU—NOPSI, AP&L, LP&L and MP&L—as well as MSE (now SERI), MSU's wholly-owned generation company and owner of a 90% interest in the Grand Gulf plant; Middle South Services, Inc. ("MSS"), a service company; and other direct and indirect subsidiaries of MSU. (NOPSI Exh. 35, pp. 2-3.) Service is provided by LP&L to a large part of Louisiana and to the 15th Ward of New Orleans (Algiers); by MP&L to a large part of Mississippi; and by AP&L to parts of Arkansas and southeastern Missouri.

The Middle South System operates as an electric power pool, in which the high voltage transmission facilities of the individual operating companies are interconnected. (NOPSI Exh. 39 at 4.) The power pool is an integrated electric system and serves a 92,000 square mile area covering the four states mentioned above. (*Id.*, p. 3.)

With the recent exception of Grand Gulf, all generation facilities on the system have been built, owned and operated by individual operating companies. (NOPSI Exh. 35 at 5; NOPSI Exh. 39 at 3.) Many of these plants have been certified by the Council or state regulatory commissions and, for retail ratemaking purposes, each is considered as within the rate base of the operating company

[28] Certain names and terms have been previously defined or abbreviated at pages 3-5 *supra*.

that owns it. All of the generating units, including Grand Gulf, are centrally-dispatched and controlled by the Middle South Operations Center in Pine Bluff, Arkansas. (CNO Exh. 39 at 3.)

2. SEC Approval of the Middle South Reorganization Plan

In 1949, the Securities and Exchange Commission ("SEC") approved the plan of reorganization, submitted under Section 11 of the Public Utility Holding Company Act ("PUHCA"), 15 U.S.C. § 79k (1981), pursuant to which MSU was created and was to own the common stock of NOPSI, AP&L, LP&L and MP&L. *Electric Power & Light Co.*, 29 SEC 52, 67 (1949). The SEC found (29 SEC at 62, 67) that the plan would comply with the directives of section 11(b)(2) of PUHCA, which requires the SEC to ensure that the existence of a holding company "does not unduly or unnecessarily complicate the structure, or unfairly or inequitably distribute voting power among security holders, of such holding company system." 15 U.S.C. § 79k(b)(2).

In 1953, the SEC found that the Middle South system constituted an "integrated public-utility system" within the meaning of sections 2(a)(29) and 11(b)(1) of the PUHCA. 15 U.S.C. §§ 79b(a)(29), 79k(b)(1). *In Re Matter of Middle South Utilities, Inc.*, 35 SEC 1 (1953). Section 2(a)(20) defines an integrated public-utility system as one that is "physically interconnected . . . and which . . . may be economically operated as a single interconnected and coordinated system . . . in one or more states, not so large as to impair . . . the advantages of localized management, efficient operation, and effectiveness of regulation . . . ." 15 U.S.C. § 79b(a)(29).

Section 11(b)(1) of PUHCA directed the SEC

> (1)To require by order . . . that each registered holding company, and each subsidiary company

> thereof, shall take such action as the Commission shall find necessary to limit the operations of the holding-company system of which such company is a part to a single integrated public-utility system, and to such other businesses as are reasonably incidental, or economically necessary or appropriate to the operations of such integrated public-utility system . . . .

15 U.S.C. § 79k(a)(1).

In connection with its finding of integration, the SEC reviewed, *inter alia*, the system's interconnected transmission grid, its use of a central dispatch center, interaffiliate sales, and off-system sales. 35 SEC at 7-10. As to generation planning on the system, the SEC found:

> The record indicates that the construction programs of the Middle South system are coordinated through an operating committee. This committee meets regularly and reviews and estimates the system loads for a period several years in advance. Estimates are also made of the required system generating capabilities and of the individual companies. On the basis of these estimates, the operating committee makes its recommendations to the individual companies' managements as to the installation of additional generating facilities and construction of transmission lines. The record indicates that this system planning has made possible the installation of larger generating units than would be feasible if each of the companies were operated as individual entities, and has also resulted in lower unit costs for the power produced as well as lower initial installation costs.

(*Id.* at 8.) The SEC concluded:

> Based upon the record developed in the Electric proceedings and supplemented by the instant proceedings, we conclude that the electric system of Middle South constitutes an integrated public utility system. In reaching this conclusion, we have considered the long historical record of unified operations of the electric facilities, the extent of regulation by State Commissions, and the fact that the system is not so large as to impair the effectiveness of regulation in any of the states in which the company operates. We have also considered the high degree of coordination which, in part, appears to be due to common control, leading in turn to common planning development.

(*Id.*)

In regard to retention of non-electric properties, the SEC noted that AP&L and MP&L had disposed of their gas operations prior to the proceeding (*id.* at 2) and ordered LP&L to divest its gas operations. (*Id.* at 14.) However, the SEC permitted NOPSI to retain its gas and transportation operations on the basis of governmental policies exercised by the City of New Orleans:

> New Orleans' operations of the electric, gas and transportation services are conducted pursuant to indeterminate permits granted by ordinances of the Commission Council of the City of New Orleans, supplementary to an ordinance adopted in 1922 commonly known as the "Settlement Ordinance." That Ordinance provides, among other things, for the establishment and continuing determination of the Company's rate base, the rate of return on the rate base, and the rates and fares to produce such return. It also provides that the City have a perpetual option to purchase parts or all of the property, at the rate base values.

. . .

The Commission Council of the City of New Orleans exercises complete regulatory jurisdiction over the Company with respect to rates, accounting, property acquisitions, and issuance of securities.

The record contains an affidavit of the Commissioner of Public Utilities of the City of New Orleans which sets forth a statement of policy of the City concurred in by the Mayor of New Orleans and all the members of the Commission Council of the City. That statement of policy sets forth that the unified operation of electric, gas and transportation operations by New Orleans is the result of careful planning on the part of the City and is designed "to foster and safeguard the benefits which this City acquired for itself in connection with the 1922 reorganization." That statement of policy also sets forth that the City "has certain well defined legal rights to have the operations continue as they have" and that "for both legal and practical reasons therefor, the City will firmly enforce its rights and protect the benefits which it enjoys under the present local franchise situation."[39] [40]

(*Id.* at 14-15.) The SEC concluded that "[i]n view of the expressed policy of the City with respect to its strong desire for continued unified operations, and in view of the New Orleans franchise situation" it would decline to order divestiture of NOPSI's non-electric facilities. (*Id.* at 15.)

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[39] The SEC itself has no ratemaking authority over NOPSI's sale of electricity. *See* SEC Release No. 23579, *In the Matter of Middle South Utilities, Inc.*, p. 421 (January 23, 1985).

[40] Certain names and terms, previously defined or abbreviated in the text, are set forth in full here as an aid to clarity.

3. History of System Agreements

For several decades, NOPSI and its affiliated operating companies have been parties to a series of agreements governing their power pooling arrangements. These agreements controlled the sales of power and energy between the companies, and were for the most part filed with and approved by the Federal Power Commission ("FPC"), the predecessor of FERC. (NOPSI Exh. 39 at 6.) Recent agreements have continued to reflect both the role and responsibilities of the individual companies on the system and the nature of the joint generation planning in which they engage. (NOPSI Exh. 39 at 6-15.)

When the decision to build Grand Gulf was made, the operative pooling agreement was the "1973 System Agreement." (NOPSI Exh. 35, MLH-15, Item 1.) NOPSI's witness Mr. Regis Trumps, a vice-president of MSS, testified as to the history preceding the 1973 System Agreement as described in the several quoted paragraphs below:

> Prior to 1951, power and energy transactions between the Middle South operating companies were accomplished through various FPC approved service schedules, which were documents setting forth the terms and conditions under which transactions were to occur. In 1951, AP&L, LP&L and MP&L adopted an agreement titled, "Memorandum Re Administration of Intra-System Transactions and System Planning and Development" ("Memorandum Re").

(NOPSI Exh. 39 at 6.) In 1971, Arkansas-Missouri Power Company ("Ark-Mo"), since consolidated into AP&L, also became a party to Memorandum Re. (*Id.*)

Mr. Trumps explained that the benefits sought to be achieved by the Memorandum Re included the following:

> the combined loads of the companies could be provided with less generating capacity; emer-

> gency conditions could be met with a lesser likelihood of severe symptoms; and more efficient generating equipment could be added and installed more economically.

(*Id.*)

NOPSI was not a party to Memorandum Re, but entered into a "similar agreement" with LP&L in 1956. (*Id.* at 6.) (Neither Memorandum Re nor the NOPSI-LP&L agreement is part of the record in this proceeding.)

The 1973 System Agreement was a system-wide pooling agreement that succeeded Memorandum Re. Mr. Trumps testified to its origin as follows:

> Memorandum Re was a reasonably sound agreement, but by the late 1960's it became apparent that a more formal pooling agreement, with up-to-date coordination concepts and pricing parameters, was necessary. An Ad Hoc Committee of one engineering and one rate representative from each operating company and a representative from MSS was appointed to draft what became the 1973 System Agreement. That System Agreement was tendered for filing and was accepted as a just, reasonable, and non-discriminatory rate schedule by the FPC.

(*Id.* at 7.)

As stated in Section 3.01 of the 1973 System Agreement, the purpose of that agreement was:

> to provide the contractual basis for the continued planning, construction, and operation of the electric generation, transmission and other facilities of the Companies in such a manner as to achieve the maximum possible economies consistent with the highest practicable reliability of service, with the reasonable utilization of natural resources and

> effect on the environment, and to provide a basis for equalizing among the Companies any imbalance of costs associated with the construction, ownership and operation of such facilities as are used for the mutual benefit of all the Companies.

(NOPSI Exh. 36, MLH-15, Item 1, p. 11.) The Agreement had three principal functions: (1) it set forth the responsibilities of the operating companies with respect to generation capability, generation planning and power and energy transactions (*see* Article IV); (2) it provided service schedules to govern the power and energy transactions between the operating companies (*see* MSS-1 through MSS-5); and (3) it designated a Middle South Operating Committee ("MSOC") composed of a representative from each operating company and MSU and delineated its role in system planning (*see* Article V).

The anticipated benefits of the 1973 System Agreement, delineated in its Section 3.05, were similar to those of Memorandum Re:

> It is believed, based on experience, that by jointly planning on a system basis for the construction and operation of these major facilities:
>
> (a) The combined loads of the Companies can be supplied with less aggregate installed capacity; and
>
> (b) Installations of additional capacity can be made at lower cost because of the large unit sizes; and
>
> (c) The new installations will be more economical and require less operating labor and maintenance per KW because of the large unit sizes; and
>
> (d) The strengthened transmission system will make possible a fuller utilization of the ca-

pability of the lower cost generating units of the System; and

(e) Emergency conditions in any part of the System or other systems in adjacent areas can be met with less probability of impairment of service to the general public.

(NOPSI Exh. 36, MLH-15, Item 1, p. 12, § 3.05.) Section 3.06 goes on to provide that, as a consequence of these anticipated benefits, it was intended that ". . . each Company shall be willing and able to provide its portion of the major facilities determined to be necessary and that each company shall share in the benefits and pay its share of the costs of coordinated operations . . . ." (*Id.* at 13.)

It is important to note that Section 4.01 of the agreement specifies, "Each Company shall normally own, or have available to it under firm contract, such generating capability and other facilities as are necessary to supply all of the requirements of its customers." (*Id.* at 14.) According to Mr. Trumps:

> This principle recognizes the responsibility of each operating company to finance and construct or arrange for generation sufficient to meet its own load, just as it would have the responsibility to do in the absence of its participation in the power pool. Neither the affiliation of the MSU operating companies through their common parent, MSU, nor the existence of the [Middle South Operating Committee], which is assigned the task of coordinating System-wide planning, relieves any of the MSU operating companies from its public utility duty to serve its franchise load.

(NOPSI Exh. 39 at 16.)

In 1981, a revised system agreement was drafted by representatives of the operating companies. NOPSI and the other companies executed this agreement, known as

the "1982 System Agreement," and filed it with the FERC in the spring of 1982. (NOPSI Exh. 39 at 8.) One of the objectives of the 1982 System Agreement was "to ensure that each MSU operating company has an appropriate share of coal and nuclear base generating units." (NOPSI Exh. 39 at 8.) Details of the 1982 System Agreement are discussed *infra*.

4. Generation Planning On The System

Mr. Trumps provided detailed testimony as to the nature of "the planning process utilized by the operating companies" at the time when the companies decided to build Grand Gulf I, as follows:

1. Each MSU operating company furnished the MSOC as frequently as required, but at least once a year, estimates of its peak load and energy requirements. The MSOC then consolidated these MSU operating company peak and energy forecasts into one Middle South System peak and energy forecast.

2. The MSOC also obtained from each of the operating companies its individual projections of future power supply capability and, after coordinating them, consolidated them, just as the load forecasts had previously been consolidated. A consolidated load and capability forecast was then produced for the overall power supply requirements of the System.

3. This coordination activity performed by the MSOC mainly addressed the installation schedule of generating units, the approximate size and general location of generating units, and considerations of purchases from other utilities.

4. The final decision as to the exact location of a power supply source, its fuel, and exact size

was made by the individual operating company which had agreed to install the generating unit. The location and fuel could not usually be specifically determined until after land, environmental, and transmission studies had been made. Performing these necessary studies was the responsibility of the individual operating companies.

5. The consolidated plans were submitted to and approved by the chief executive officers of the companies. In addition, the Board of Directors of the operating companies approved the construction projects of their respective companies and the expenditures therefor. The individual operating companies then proceeded to secure and obtain such regulatory approvals as may have been required at the time and to finance, construct, operate, and maintain the particular generating units which had been scheduled for installation by them.

(NOPSI Exh. 39 at 16-18.)

The role of NOPSI in the process described by Mr. Trumps prior to 1973 is somewhat unclear in light of the fact that NOPSI was not a party to Memorandum Re. However, at least since the execution of the 1973 System Agreement, it appears that NOPSI and the other operating companies provided the MSOC with their load and capability forecasts, that the MSOC "coordinated" such forecasts and determined the need for new generating units, that such plans were approved by the chief executive officers of the operating companies, and that each individual company determined the specifics of the generating unit undertaken by it and ultimately approved its construction and budgets.

Mr. Cain testified similarly as to generation planning on the Middle South System in a proceeding before the LPSC

in 1983. (CNO Exh. 30(c).) He stated that each operating company was required to plan for its own generation additions and prepared, among other things, load forecasts and customer density studies. Its forecasts were then coordinated with those of the other operating companies by the MSOC. The MSOC then issued an "interim assignment" of a generating unit which was presented to the individual operating company board for final approval. (*Id.*) In Mr. Cain's words:

> An interim assignment of that generation is made to a particular operating company and then it is the decision of that operating company's board of directors to finalize that decision and proceed with the implementation of that decision.

(*Id.*) The operating company independently selected "the size, type and location of the generation units." (*Id.* at 29.)

Mr. Cain stated that "the ultimate, final decision rests with the operating company." (*Id.* at 27.) Further, an operating company could reject a decision of the MSOC (*id.*), just as NOPSI decided against the Alligator Point plant on the basis of site studies (discussed in greater detail below), and as LP&L had rejected the assignment of the St. Rosalie plant. (*Id.*)

5. Cost Allocation Under The 1973 System Agreement

The 1973 System Agreement contained two principal mechanisms for the allocation of the cost of certain electric production among the operating companies. Service Schedule MSS-1 to the agreement, entitled "Capability Equalization," purported to "equalize" generating capability (capacity) among the companies "so that the capability of each company after equalization [would] be equal to its Capability Responsibility." (NOPSI Exh. 35, MLH-15, Item 1, p. 1-1.) Service Schedule MSS-3, entitled "Exchange of Electric Energy Among the Companies," set forth a pric-

ing formula for energy bought and sold on the system by the operating companies. (*Id.* at 3-1.)[41]

The term "equalization" is somewhat a misnomer in the context of the agreement. Capability "equalization" under MSS-1 spread the generating capacity on the system among the four operating companies in proportion to the relative size of their loads. By sharing the costs of *certain* generation plants termed "Participation Units" (which were defined as newly built generation units, some of the capacity of which was in excess of the needs of the operating company that owned it), each company became responsible for a *number of MWs* of system capacity in proportion to its own load. However, because each company was solely responsible for the costs of its own generating plants (in addition to a possible share of Participation Units), and because the costs of such plants were not identical, the capacity *costs* paid by one company could and did vary significantly from that of another company, and were *not* "equalized."

The formula contained in MSS-1 turned on the defined term "Capability Responsibility."[42] A company's Capability Responsibility was determined by first calculating its "Responsibility Ratio"—a measure of the peak load of the company, relative to others' loads. It was calculated by establishing a ratio of the average of each company's four highest non-coincident peak demands[43] to the total peak

[41] Three other service schedules were attached to the 1973 System Agreement: (1) MSS-2, "Transmission Equalization"; (2) MSS-4, "Distribution of Revenue From Sales Made For The Joint Account Of All The Companies"; and (3) MSS-5, "Distribution Of Operating Expenses Of Systems Operations Center."

[42] "Capability Responsibility" was defined in Section 2.13 of the 1973 System Agreement as "the System Capability multiplied by the Responsibility Ratio for that Company." (*Id.* at 8.)

[43] Section 2.10 of the 1973 System Agreement provided:

> *Company Load Responsibility* shall be as follows:
>
> (a) The average of the four highest clock-hour demands in megawatts of a company's system, each on a different day, occurring during the twelve-month period ending with the current month, but not less than 90% of the average of the four highest such demands occurring during the twenty-four (24) month period ending with the current month, where each such demand shall represent the simultaneous hourly input from all sources into the system of a company less the sum of the simultaneous hourly outputs to the systems of other interconnected utilities. (Company demands shall include firm power supplied to other systems for its own account.)
>
> (b) Less the power supplied to others as sales for the joint account of all the Companies.
>
> (c) Less the contractual amount of firm purchases with reserves available during the month from other systems for its own account.

Section 2.11 provided:

> *System Load Responsibility* shall be the arithmetical sum in megawatts of the individual Company Load Responsibilities.

[44] Section 2.08 provided:

> *Capability* shall be the net output in megawatts that can be produced by a generating unit under the conditions specified by the Operating Committee, or the input in megawatts

demand of the system. (NOPSI Exh. 39 at 11.) For example, NOPSI's peak demands have been roughly 9% of the system total, and, accordingly, its responsibility ratio has been approximately 0.09. (*See, e.g.*, CNO Exh. 30(c) at 96.)

The next step was to determine System Capability, defined as the sum of MWs that could be produced by the four companies' generating units or that were under contract. (*See id.*, p. 7, §§ 2.08, 2.09.)[44] A company's Capability

Responsibility could then be derived by multiplying the System Capability by its Responsibility Ratio. If a company had (by ownership or contract) *less* generation capability than its Capability Responsibility, it would be considered "*short*"; if it had *more*, it would be considered "*long*."

Under Section 10.03 of MSS-1, the excess capability (over its Capability Responsibility) of each "long" company would be "allocated to each deficient Company in the ratio of such Company's deficiency to the sum of the deficiencies of the deficient Companies." (*Id.*) The cost of the allocated capability, as determined by Section 10.05 of MSS-1, was based on the monthly fixed costs of the company's "Participation Unit." As previously indicated, "Participation Unit" was defined as the "most recently installed" unit or units owned by a company. (*Id.* at 1-3, § 10.04.)

Thus, to effect capability "equalization," short companies were required to make payments to long companies based on (1) the number of MWs by which they were short and (2) the capital cost of MWs associated with the long companies' participation units.[45] (*See* NOPSI Exh. 39 at 11.) In return for its payments, the short company received an entitlement to the energy generated at the Participation Unit in proportion to the capability allocated to the short company from such plant. MSS-1, § 10.04(b), pp. 1-3 to 1-4.[46]

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available under contract from a supplying source.

Section 2.09 provided:

> *System Capability* shall be the arithmetical sum in megawatts of the individual Company Capabilities.

[45] Under the Schedule MSS-1, a company could be considered short and required to make equalization payments to long companies, even when it had adequate generation of its own and no need for the long company's capacity. Such a situation could arise when, as today, excess capacity exists on the system and each company is obligated to pay for a portion of the excess as part of its Capability Responsibility.

[46] During most of the 1970's, NOPSI was a long company and received payments from the short companies calculated on the basis of the costs of its Michoud 3 plant.

The dispatch of generating plants and the pricing of energy bought and sold between the companies were governed by Service Schedule MSS-3. Section 30.02 of MSS-3 provided that the System Operator would "dispatch" (that is, utilize) the plants in the system to obtain the lowest cost energy for all the companies, *i.e.*, the lowest variable cost units would be dispatched first. Section 30.03 provided that, for billing purposes, the dispatched energy would be allocated on an hourly basis, first to the Company owning the unit (unless such energy was excess from a long company's Participation Unit) and second "to supply the requirements of the other Companies (pool energy)." (*See* CNO Exh. 29 at 237.) Excess energy from a long company's Participation Unit was considered the entitlement of the short companies, in proportion to their capability allocation from such unit, and was known as "entitlement energy." (*Id.*) The pricing of energy exchanged between the companies was determined by Section 30.06 of MSS-3. (*Id.* at 3-3.) Entitlement energy from Participation Units was priced at the cost of fuel to generate such energy. (*Id.*, Section 30.06(a).) Pool energy was priced at the cost of fuel plus an adder. (*Id.*, Section 30.06(b), (c).)

6. Impact of Generation Decisions on Relative Company Costs

The foregoing provision for joint system planning and the allocation of capability have not produced a common cost of service among the operating companies. Capacity costs have been shared only when the plant involved was a Participation Unit of a long company, only to the extent the company was actually long, and only by companies that were short. (NOPSI Exh. 30, MLH-15, Item 1, pp. 1-1 to 1-5.)

Rather, the decisions made by each operating company as to particular generating plants it built or contracted for had great impact on its costs of service (CNO Exh. 29 at 233), and there has been a wide disparity in those costs among the companies. NOPSI's Senior Vice President, Mr. Hurstell, specifically confirmed that an individual operating company's decision as to choice of generation sources affects its costs of electricity. (CNO Exh. 29 at 232.)

Moreover, under the 1973 System Agreement, each operating company was responsible for making "the necessary financial arrangements" to proceed with construction of generation units assigned by the MSOC. (NOPSI Exh. 36, MLH-15, Item 1, p. 15.) Mr. Cain testified that a company was "responsible for the costs associated" with a plant "for which [it had] responsibility." (CNO Exh. 30(c) at 102.) Also, costs other than those of generation contributed to a company's total cost of electricity.

Disparities among the operating companies' costs have been substantial. Over the period 1965 to 1982, NOPSI's average costs of service were the *highest* on the system, exceeding those of AP&L, for example, by over 50%. (CNO Exh. 30(c) at 126.) The costs of electricity to the four companies during that period were:

Operating Company	Cost of Service (per kWh)
NOPSI	6.2
MP&L	6.045
AP&L	4.878
LP&L	3.96

(*Id.*) (Based on the Grand Gulf allocation agreed to by NOPSI in 1980, this disparity was projected in 1983 to *increase* for the period 1983-1992.)[47]

[47] NOPSI, again the highest cost company, would have a total average cost of 16.35 /kWh compared to only 6.73 /kWh for AP&L. CNO Exh. 30(c), p. 127. NOPSI's witness here, Mr. Louiselle, testified before the LPSC in 1983 that Middle South and NOPSI have operated so that NOPSI's ratepayers had incurred the highest electricity costs since at least 1965 (CNO Exh. 33, p. 858).

Thus, NOPSI's status as a member of the MSU "system" did *not* obviate the need for its management to exercise *critical judgment* and act *prudently* in meeting NOPSI's duty to provide economical electric service to the ratepayers of New Orleans in accordance with its public utility and specific franchise obligations. In testifying before the LPSC in 1983, NOPSI's witness here, Mr. Bruce Louiselle (then a consultant to the LPSC), testified as to how NOPSI had fared in meeting its obligations to its ratepayers as follows:

> Q. Mr. Louiselle, I wonder if we can focus for a moment on all that Middle South and NOPSI have done lately for NOPSI's ratepayers. First, Middle South has assigned an excessive allocation of Grand Gulf power to NOPSI, is that correct?
>
> A. Yes.
>
> Q. And NOPSI has acquiesced, is that true?
>
> A. Yes.
>
> * * *
>
> Q. Now, the second thing that Middle South and NOPSI have done to NOPSI's ratepayers is to allow AP&L out of its obligation to take an allocation of Grand Gulf, is that correct?
>
> A. Yes.
>
> Q. And NOPSI's ratepayers will incur greater costs as a consequence of that action, is that true sir?
>
> A. Yes.

Q. The third thing that Middle South and NOPSI have done to NOPSI's ratepayers has been to operate their system in a way that's enabled NOPSI to have the highest electricity costs on the Middle South system, at least since 1965, to the present, is that true sir?

A. Yes, I believe that is an accurate statement. Their costs have been higher than any other Operating Company since that period of time.

* * *

Q. Now, the fourth thing that Middle South and NOPSI have done for NOPSI's ratepayers is that they have arranged for NOPSI to own absolutely no low cost coal-fired generation at least for the rest of this decade, is that true sir?

A. Yes.

Q. NOPSI presently owns no coal-fired generation, is that correct?

A. Other than their unit power purchase of White Bluff, that's correct which expires or is set to expire when Grand Gulf goes on line.

Q. And that's not an ownership interest of course is it?

A. That's correct, it's not.

(CNO Exh. 33 at 585-860.)

B. NOPSI's Generation Needs And Projections in 1974

NOPSI is and has been the smallest of the four operating companies on the Middle South system.[48] In 1974,

[48] Ark-Mo, which has since been absorbed by AP&L, had a very small load (*e.g.*, 284 MW in 1973). (NOPSI Exh. 35, MLH-5B, 10/4/73 Forecast.)

with an actual peak load of only 869 MW, NOPSI was roughly half the size of MP&L, the next smallest operating company, and less than one-third of the size of AP&L and LP&L, respectively. (NOPSI Exh. 36, MLH-5B, September 11, 1974 Forecast.) While NOPSI's service territory is limited to Orleans Parish, its sister companies serve larger areas throughout their respective states and have supplied power to utilities off the Middle South system. (*See* CNO Exh. 29 at 34-35.) Moreover, during the early 1970's NOPSI was projecting slower growth than its affiliates. The 1974 system forecasts projected NOPSI's load to grow 260 MW, or 27%, from 1975 to 1980. The system growth was projected to be 5828 MW, or 60 percent, during that period. LP&L, the company with the highest projected growth rate, was projecting growth of 2239 MW, or 72 percent. (NOPSI Exh. 36, MLH-5B, 9/11/74 Forecast.)

During the 1970 to 1974 period, NOPSI's forecast of its 1980 load actually decreased by about 60 percent. NOPSI's annual projections for its 1980 load were as follows:

Date of Forecast	Projected NOPSI Peak Load for 1980 (MW)
10/01/70	1800
10/11/71	1570
9/28/72	1570
10/04/73	1405
9/11/74	1210

(NOPSI Exh. 35, MLH 5-A and MLH 5-B.) The total system projections decreased during the same period, but by about only 9 percent. In 1970, the system total load projected for 1980 was 16748 MW, which projection dropped to 15453 MW by 1971 and 15277 MW by 1974. (*Id.*)

In 1974, NOPSI operated eleven oil and gas generating units with a combined capacity of 1257 MW. NOPSI's newest and largest unit, Michoud Unit 3, was completed in 1967 with a capacity of 548 MW—about 60 percent of NOPSI's 1974 peak load. NOPSI's oldest units at Market

Street and Patterson were constructed during the 1930's and 1940's and were expected to be retired in the 1980's.

In 1974, NOPSI was a long company under the 1973 System Agreement. Michoud 3, with a capacity cost of less than $100/kW, was a participation unit. (Tr. 1046.) With no planned capacity additions of its own, however, NOPSI would be a "short" company by 1980, when Grand Gulf I was expected to become operational. (Tr. 1047.)

C. The System's Generation Needs And Projections In 1974

As indicated in the previous section, the Middle South system in the early 1970's was projecting rapid growth of the combined loads of the operating companies throughout the decade and into the 1980's. According to Mr. Hurstell, the system had experienced an annual increase in its peak load of approximately 10 percent in the 1960's. (NOPSI Exh. 36 at 12.) Although its 1974 projection had fallen off slightly, the system was still projecting annual growth approaching 10 percent through 1989. The system estimated that its projection of 9506 Mw for 1975 would be exceeded by 61 percent in 1980 (15277Mw), by 147 percent in 1985 (23456 Mw), and by 253 percent in 1989 (33539Mw). (NOPSI Exh. 36, MLH-5B, 9/11/74 Forecast.)

D. Decision to Build Nuclear Plants—Including Grand Gulf—And Coal Plants

In 1970 and 1971, the MSOC determined that the system load forecasts required the construction of additional generation capacity. (NOPSI Exh. 36 at 6.) According to Mr. Hurstell, the "additional capacity" was needed primarily to serve future growth". (*Id.*) The capacity was also needed for "fuel diversity" (*id.*), which Mr. Hurstell

defined as movement away from reliance on the system's gas and oil fired generation. (CNO Exh. 29 at 214.)[49]

Prior to the 1970's substantially all of the system's generating facilities were built to burn natural gas or oil as a primary fuel. However, throughout the late 1960's and early 1970's, the supply of natural gas for electric generation became increasingly scarce. Pipelines became reluctant to commit to long-term supplies and eventually curtailed deliveries to several of the operating companies. (NOPSI Exh. 35 at 3, 6; NOPSI Exh. 36 at 7.)

In 1970, United Gas Pipe Line Company ("United"), then the exclusive supplier of natural gas to NOPSI, filed a plan with the Federal Power Commission ("FPC") to curtail service to NOPSI. In 1971, United filed an application with the FPC to abandon service to NOPSI. In 1973, the FPC issued curtailment guidelines for natural gas pipelines, such as United; these accorded the lowest priority to utility usage. In 1975, NOPSI's gas contract with United expired and was replaced by a new agreement that substantially increased the price NOPSI was required to pay for natural gas. NOPSI Exhibit 36, p. 7.

Additionally, the Arab oil embargo of 1973 caused a rapid increase in the cost of oil and raised the prospect that the price of oil, like that of gas, would be subject to large fluctuations. (NOPSI Exh. 35 at 61, NOPSI Exh. 36 at 7.)

The foregoing developments caused the Middle South System to decide to move away from oil and gas as generation fuels. (NOPSI Exh. 36 at 12.) Although Mr. Cain testified that the goal of the System was to move to a

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[49] Mr. Hurstell also testified that the additional capacity was further needed to replace capacity which would become obsolete in the future. *Id.* However, in 1974 the system was expecting to retire only 103 Mw—NOPSI's Market Street plant—in the next 15 years. (*See* NOPSI Exh. 36, MLH-5B, 9/11/74 Forecast.)

"50-50 mix" of nuclear and coal generation (CNO Exh. 30(c) at 98), NOPSI itself made no commitment to participate in a coal-fired unit, and had in fact no prospect of participating in such a unit for at least a decade.

In the late 1960's, LP&L and AP&L had committed to install three nuclear units, Waterford 3 (1165 Mw) and Arkansas Nuclear ("ANO") Units 1 and 2 (totalling approximately 1800 Mw), respectively, with completion of the first ANO unit expected to be in 1974. In 1973, AP&L committed to a series of 700 MW coal units, the first of which, White Bluff 1, was scheduled for completion in 1978. (NOPSI Exh. 36, MLH-5B, 11/9/74 Forecast.)

Mr. Hurstell testified that, despite these undertakings, the MSOC determined that additional capacity of 1400 and 1625 Mw should be added in 1978 and 1979, respectively. (NOPSI Exh. 36 at 12.) In 1971, the MSOC commissioned a study of generation alternatives for an additional 1400 Mw of capacity by 1978. The study, entitled "Evaluation of Alternate Generating Capacity Additions," indicated that the most economic choice would be a 1250 Mw nuclear unit. (NOPSI Exh. MLH-6.) On the basis of this study (NOPSI Exh. 36, MLH-6), the MSOC in 1971 determined that two 1250 megawatt nuclear generating units should be constructed. The first was to be at the Grand Gulf site in Port Gibson, Mississippi and to be owned by MP&L. The second was to be constructed by NOPSI at Alligator Point in eastern New Orleans. (NOPSI Exh. 36 at 13-14.)

In 1971, a joint committee of MP&L and NOPSI was organized to begin planning the two nuclear units. Shortly thereafter, the committee retained Bechtel Power Corporation ("Bechtel") as architect/engineer for the units. In 1972, Bechtel advised that poor subsurface conditions of NOPSI's Alligator Point site would result in increased costs for the NOPSI unit. (NOPSI Exh. 36 at 14.) The September 11, 1972 minutes of the NOPSI Board of Directors indicate that Senior Vice President M.L. Cade made a

presentation in which he indicated that it was necessary to abandon the proposed plant due to the results of the Bechtel study. More broadly, he noted, "steeply rising costs of nuclear plants have thrown a cloud on their possible future use on the Middle South System." (CNO Exh. 42 at 2.) NOPSI withdrew the Alligator Point plant from further consideration in August 1972. (NOPSI Exh. 36 at 14.)

In late 1972, MP&L undertook project management of both proposed nuclear units—to be known as Grand Gulf I and Grand Gulf II—at its Grand Gulf site in Mississippi. (NOPSI Exh. 36 at 15.)

E. Commitments To Grand Gulf Under The Availability Agreement

The projected costs of the Grand Gulf units were apparently too large to be financed by any individual company. Mr. Hurstell testified that the projected cost of the first unit alone was $656 million, or roughly one and a half times MP&L's rate base. (NOPSI Exh. 36 at 15.) Mr. Cain testified that it would have been "extraordinarily difficult, if not impossible" for NOPSI and MP&L to finance the two 1250 MW units. (NOPSI Exh. 35 at 8.)

It was determined to utilize the support of all the operating companies to finance the Grand Gulf project. This could have taken one of several forms, but it was decided to create a new MSU subsidiary for this purpose. In February 1974, MSE (SERI) was incorporated. (NOPSI Exh. 35 at 8.) In June 1974, MSE purchased the Grand Gulf project from MP&L for $20 million, but immediately contracted for MP&L to act as agent to design, construct and operate the project. (NOPSI Exh. 36 at 16.) Although the operating companies contemplated that MSE would own other base load capacity, MSE's only ownership interest to date has been the Grand Gulf plant. (*Id.*)

NOPSI and the other operating companies committed the backing necessary to finance the Grand Gulf project

in June 1974, by executing the "Availability Agreement." (NOPSI Exh. 36, MLH-15, Item 2.) The Availability Agreement provided that MSE would use its best efforts to construct the Grand Gulf project (*id.*, Section 2) and, upon completion, make its output available to the operating companies. (*Id.*, Section 3.) In return, NOPSI and the other operating companies committed to pay for the output of the project in an amount equal to the total costs (plus a return on investment) that MSE incurred in supplying the power and energy. (*Id.*, Section 4.) Mr. Cain testified:

> My understanding of the purpose of the Availability Agreement was to contractually bind the operating companies of Middle South Utilities to a fiduciary pledge of financial responsibilities of financing Grand Gulf 1 and 2. (Tr. 482-483.)
>
> . . . .

Section 4 of the Availability Agreement provided that the operating companies' entitlement to, and their obligation to pay for, the output of Grand Gulf would be governed by the "then applicable requirements of the System Agreement (or any agreement substituted therefor)." (NOPSI Exh. 35, MLH-15, Item 2, Section 4; Tr. 486.) Thus, this means that the allocation of Grand Gulf's output and costs would be made such that "short" companies would be obligated to purchase Grand Gulf output in proportion to their capability deficiencies. (NOPSI Exh. 35 at 12-13, NOPSI Exh. 36 at 17-18.)

The Availability Agreement was the first of its kind on the Middle South System. (Tr. 486.) MSE's role as a long company was also unique in that it would have no "capability responsibility" because it had no load. (NOPSI Exh. 36 at 18.) It therefore would always be a long company to the full extent of its generating capacity, and "all

of the Grand Gulf capacity and energy would be purchased by the operating companies in proportion to their relative deficiencies in capability." (*Id. see* Tr. 1045.)

As a result of these circumstances and NOPSI's projected status as a short company at the time when Grand Gulf would become operational, NOPSI knew in 1974 that it would be obligated to purchase a "substantial amount" of Grand Gulf capacity "in the early years when Grand Gulf capacity was relatively expensive." (NOPSI Exh. 36 at 18.) Nevertheless, NOPSI could not determine the amount of its commitment. NOPSI's obligation could not be expressed in numbers of megawatts or as a percentage of the plant, and NOPSI could not ascertain its monetary exposure when it executed the Availability Agreement. (Tr. 547, 549.)

In addition, the Availability Agreement set no purchase price for Grand Gulf's output, or any cap on such price. The contract called for complete reimbursement of MSE's expenses without limitation as to how high those expenses might be, without penalties for cost overruns or limits on the exposure of the operating companies. (*Id.*)

Moreover, the operating companies agreed to pay all of MSE's costs if Grand Gulf were "not in service for any reason." (*Id.*, Section 4.) They agreed to pay if Grand Gulf became permanently shut down, including shut-down and perpetual maintenance costs. They agreed to pay specified amounts if Grand Gulf did not enter into service by December 31, 1982. (*Id.*, Section 4 and 5.) The short companies would be responsible to pay for the entire fixed charges of the plant even if no power were ever delivered from it. (Tr. 442, 569.)

As required by PUHCA, MSU filed the Availability Agreement with the SEC, which approved it by order dated June 4, 1974. *Middle South Utilities*, SEC Public Utility Holding Co. Act Rel. No. 18, 437 (Jan. 4, 1974) (NOPSI Exh. 35 at 8-9; NOPSI Exh. 36 at 16-17; 27-28, 36.) NOPSI did not request or secure the Council's ap-

proval of its entering into the Availability Agreement. (Tr. 487.)[50] In fact, the Council did not become aware of the nature of NOPSI's commitment until 1980.

On the strength of the Availability Agreement, MSE secured the financing needed to construct the project.

MP&L and MSE jointly petitioned the MPSC for a certificate of public convenience and necessity authorizing construction and operation of the Grand Gulf project. The MPSC issued an order granting a certificate in May 1974, and site preparation commenced. (NOPSI Exh. 36, MLH-19-A at 2-14.) In September 1974, the AEC issued construction permits for both Grand Gulf units. (*Id.*) In December construction of the reactor building began, and Bechtel issued its "Definitive Cost Estimate and Schedule" forecasting completion of Grand Gulf I by January 1980 at a cost of $854 million. (*Id.*)

F. Generation Capacity Additions By Other Operating Companies In The 1970's

The first major units, other than oil and gas units, to commence service on the system were AP&L's nuclear ANO Unit 1 and Unit 2 in 1980 (836 MW and 858 MW capacity, respectively). Planning of these units had commenced in the 1960's. LP&L's planning process for its 1104 MW Waterford 3 nuclear unit was running over one year ahead of Grand Gulf, but initiation of heavy construction of Waterford 3 was delayed until late 1975. (Waterford 3 went into service in September 1985). In 1974, LP&L announced its plans to construct another nuclear plant, known as the St. Rosalie project, the two 1160 MW units of which were projected to enter into service in 1983 and 1985, respectively. (NOPSI Exh. 36, MLH-5-B, 9/11/

[50] This circumstance is the subject of a legal action pending in Louisiana state court. *City of New Orleans v. New Orleans Public Service, Inc.*, No. 84-4767 (Civ. Dist. Ct. for the Parish of Orleans).

74 Forecast.) The St. Rosalie project was cancelled, however, in 1975.

AP&L built four coal units known as White Bluff Units 1 and 2 and Independence ("ISES") Units 1 and 2. AP&L initially applied to the APSC for a Certificate of Environmental Compatibility and Public Need for four units at the White Bluff site in 1973. (NOPSI Exh. 40 at 3.) In 1974, AP&L was granted a certificate for two of those units. (*Id.*, p. 4.) In 1977, AP&L and two co-applicants filed for a certificate for two identical units at the Independence site. (*Id.*) The APSC granted that certificate in 1978. (*Id.*, p. 5.)

In the mid 1970's AP&L was apparently experiencing difficulties in financing its construction program, and in August 1975, it halted construction of White Bluff. (NOPSI Exh. 40 at 5.) AP&L was subsequently approached by several smaller power systems and eventually entered into contracts to sell undivided ownership interests in the plant "off the system" as depicted in the following table:

Buyer	Date of Contract	Percentage Ownership	MW Ownership (approximate)
Arkansas Electric Cooperative Corp. ("AECC")	6/27/77	35	560
Jonesboro, Ark.	6/27/77	5	80
Conway, Ark.	6/29/87	2	32
West Memphis, Ark.	1/18/80	1	16

(NOPSI Exh. 40 at 6.) Construction resumed, and the units entered into commercial operation in 1980 and 1981 respectively.

At the time of its ISES application, AP&L had entered into a co-ownership arrangement for the two ISES units

with AECC and the City of Jonesboro. (*Id.*, p. 6.) AP&L subsequently executed similar agreements with three other parties, so that by January 1980 the following systems had ownership interest in ISES:

Buyer	Percent Ownership	MW Ownership (approximate)
AECC	35	560
Jonesville, Ark.	5	80
Conway, Ark.	2	32
West Memphis, Ark.	1	16
Osceola, Ark.	0.5	8

(NOPSI Exh. 40 at 6-7.)

At least as early as January 1980, MP&L was actively considering a purchase of part of AP&L's coal units. On June 1, 1980, AP&L was apparently unable to make payments for the construction costs of White Bluff 2 and ISES 1 and 2. Pursuant to the ownership contracts for those plants, AECC advanced such funds. Absent reimbursement from AP&L by June 1, 1982, AECC would have been entitled to increase its ownership share of the units in proportion to its contributions. (NOPSI Exh. 40 at 7-8.)

Mr. Trumps testified that, in order to assure that the system-owned share of the coal-fired ISES plant would not be reduced, AP&L sold 25% of the ISES units to MP&L. (*Id.*, p. 8.) The two companies executed a Memorandum of Understanding with respect to this sale on July 21, 1980. (*Id.*, p. 9.) ISES 1 entered commercial operation in January 1983, as did ISES 2 in December 1984. (Tr. 987.)[51]

NOPSI made no attempt to explore or seek ownership arrangements for White Bluff or ISES, as did AECC, the

[51] In a separate arrangement agreed to in 1984, AP&L sold MP&L 31% of the output of Independence 1 for a five-year period. (Tr. 813.)

Arkansas Cities and MP&L. (CNO Exh. 31 at 15.) NOPSI did not seek to purchase an ownership interest in any existing or planned system coal plant, except for Wilton I described below. (Tr. 814.) Other than a short-term purchase of White Bluff output (noted below) NOPSI made no effort to purchase coal capacity either on or off the MSU system. (Tr. 815.)

On January 1, 1983, NOPSI made a short-term purchase of approximately 70 MW of the output of White Bluff until Grand Gulf came on line. (Tr. 814.) (NOPSI's witness here, Mr. Louiselle, previously questioned the wisdom of this transaction on the ground the NOPSI would have received substantially the same energy under the economy energy provision of the System Agreement, without payment of capacity charges.) (CNO Exh. 33 at 869.)

There were also plans in the mid 1970's to construct four additional 800 MW coal units in Louisiana, which would become operational in the mid-to-late 1980's. Their construction has repeatedly been postponed. (NOPSI Exh. 36, MLH-5-B.) NOPSI claims that it had plans to take 10% or 80 MW of the output of one of these plants (Wilton 1) beginning in the late 1980's. (Tr. 499-500.) However, no firm commitment was ever made, and it appears that construction of these units was never initiated.

G. Cost Estimates And Forecasting

Bechtel, the principal constructor of and engineer for Grand Gulf, was also responsible for making cost estimates which were submitted to MP&L and then to MSE. (CNO Exh. 20 at 36, 39.) NOPSI wholly relied upon MSE for Grand Gulf cost forecasting. (Tr. 650.) NOPSI had a major interest in the project costs, since it was a committed buyer of power and ultimate payor of Grand Gulf construction costs. (CNO Exh. 28 at 39, 40; CNO Exh. 29 at 112-13.) Nevertheless NOPSI management was apparently unaware of the methods by which cost estimates were made, the underlying assumptions, and whether certain

cost-relevant events were reflected in the cost estimates it received. (CNO Exh. 28 at 40-41; Tr. 709; CNO Exh. 29 at 164.)

Throughout the course of construction, the projected completion costs of Grand Gulf increased relentlessly. (NOPSI Exh. 36, MLH-18.) The Definitive Cost Estimate for Grand Gulf I in 1974 had been $854 million. The official cost forecast issued in December 1978, over a year before NOPSI made a fixed commitment to Grand Gulf, was $1.310 billion. Inexplicably, no official cost estimates were issued during 1979, the year in which the Three Mile Island incident occurred. In February 1980, the official cost forecast for Grand Gulf Unit I was $1.773 billion, over 100% higher than originally estimated. (NOPSI Exh. 36, MLH-19A at II-15 to 17.)[52]

Bechtel's contract allowed it to pass on the rising costs of Grand Gulf to MSE. (Tr. 651.) MSE, in turn, intended to pass on these costs to the operating companies, including NOPSI. NOPSI, in turn, proposed to pass on these costs to the ratepayers. (Tr. 661-62.)

H. Nuclear Plant Cost-Estimation Techniques

The conventional method used by industry to project the completed costs of nuclear plants was "engineering estimation"—a technique that relied upon calculations and judgments as to time, material, and labor, based upon the design of the project. (Tr. 1755.) Bechtel used such a method to make forecasts for Grand Gulf. (Tr. 714.) By the mid 1970's it had become apparent that the engineering estimation method invariably resulted in substantially underestimating nuclear plant costs. (Tr. 1769-70.)

A key problem in nuclear plant cost forecasting lay in making adequate allowance for the expanding and chang-

[52] Completed costs of Grand Gulf I in 1985 were in excess of $3.6 billion.

ing regulatory requirements that were driven by widespread concerns over nuclear safety. (Tr. 1760.) The "contingency" allowances that Bechtel included in its cost estimates contained no allowance for increased costs due to regulatory changes. (NOPSI Exh. 36, MLH 19A at V-35.) NOPSI's management apparently did not know this, because it never undertook to question or examine the cost estimates received.

In the mid 1970's studies of the cost of nuclear plants were released from several sources that used a standard form of statistical analysis ("regression analysis"). These results showed that nuclear plant costs were increasing at rates *far* in excess of those being shown by the industry-sponsored conventional methods. The first such study was published in 1974 by Professor I.C. Bupp of the Harvard Business School in conjunction with a group at M.I.T. (Tr. 1651-52.) Two similar studies were published by William Mooz of the Rand Corporation in 1978 and 1979. (Tr. 1652.) In additional, a book using regression analysis to analyze nuclear and coal plant on-line capacity factors was published in 1976 by Charles Komanoff, a witness here. In 1978 Mr. Komanoff's analysis of nuclear plant capital costs was set forth in state regulatory testimony and reported in *Nucleonics Weekly*, a widely read industry periodical (Tr. 1507-8), and shortly after the Three Mile Island incident, in Congressional testimony. Although NOPSI purported to be familiar with then-current studies on nuclear and coal plant costs (Tr. 757), the contrary appears to be the case. NOPSI remained unaware that the credibility of the methods employed by Bechtel and the industry generally had been seriously undercut by contemporaneous studies and data. (Tr. 721.)

I. Growing Concern Over Gas And Oil As Generation Fuels

During the mid 1970's, there were a number of federal legislative and executive actions taken to discourage elec-

tric utilities' use of oil or natural gas as a boiler fuel. (NOPSI Exh. 35 at 6-7.) In 1978, the Power Plant and Industrial Fuel Use Act, Public Law No. 95-620, 92 Stat. 3289, was passed. It prohibited the use of natural gas in existing power plants after January 1, 1990 and the construction of any major new plants burning either oil or natural gas. (NOPSI Exh. 36 at 8.)

Moreover, NOPSI was having difficulties in obtaining gas as a fuel for its power plants. (CNO Exh. 29 at 78.) Oil and gas prices were continuing to rise. The Iranian revolution in 1979 raised additional concerns about the availability of oil. (Tr. 664.)

The increased price of gas and oil, the Fuel Use Act, the lack of gas, and the Iranian situation did not, it should be noted, alone or together, affect the choice available to NOPSI between nuclear and coal based power generation. (Tr. 677.)

J. The Three Mile Island Incident

On March 28, 1979 an accident occurred at Unit II of the Three Mile Island nuclear plant south of Harrisburg, Pennsylvania, the worst accident in the history of commercial nuclear power generation. Within two weeks, the President approved a "President's Commission on the Accident at Three Mile Island." (Tr. 1272.) The incident focused the nation's attention on nuclear safety issues and resulted in calls for the reorganization of the Nuclear Regulatory Commission and for new actions to ensure nuclear safety. The Three Mile Island incident had an immediate and profound effect on nuclear plant regulation and "came to dominate thoughts in nuclear regulation for the balance of that year and during the time since." (Tr. 1277.)

The report of the President's Commission was released in October 1979, and contained serious criticism of the NRC. (Tr. 1294.) More broadly, the Three Mile Island incident precipitated a wide-ranging review of the whole

structure of nuclear regulation beginning in 1979, and it had major cost implications for nuclear plants, including the Grand Gulf project. (Tr. 1342-43.) The circumstances surrounding the Three Mile Island incident and its impact on NOPSI's situation are discussed in more detail, *infra*.

K. NOPSI's Decision To Take A Large Fixed Share Of Grand Gulf

In January, 1980, approximately nine months after the Three Mile Island incident, NOPSI committed to take large fixed shares of both Grand Gulf I (335 MW) and Grand Gulf II (335 MW), aggregating 670 MW. Its share of Grand Gulf I was approximately 29.8% of the aggregate taken by all Middle South operating companies, notwithstanding that NOPSI had only 9% each of the combined load and combined assets of the system. Not all the events and considerations surrounding the allocation decision are clear, and there have been conflicting statements as to why NOPSI accepted so large a share. In reviewing the facts below, it should be noted that there are two distinct components to the 1980 allocation decision—one making each company's share of Grand Gulf *definite*, since the share had remained unquantified since 1974; and the other setting the *magnitude* of each company's share.

As previously indicated, it had initially been planned that MSE would become a party to the 1973 System Agreement. MSE's entire share of the capacity of Grand Gulf I would become a "participation unit," allocated to the operating companies pursuant to the formulae set forth in the System Agreement. In essence, this was achieved by determining each company's "responsibility" for the total capacity of its system—based upon its relative load—and requiring a company whose owned and purchased capacity was "short" of such responsibility to make payment to a company which was "long." The cost to a short company

was based on the last installed plant of a company that was "long," called a participation unit.[53]

Because the operating companies' load responsibilities would be expected to change with varying load growth, weather considerations, and other factors, and because their capacity ownership would change with the addition and retirement of generating units and purchases by off-system companies, it followed that the companies' allocation of Grand Gulf would also change. Grand Gulf was likely to be less attractive economically in early years—when the relatively undepreciated capital costs were amortized into the wholesale charges for Grand Gulf. Also, in later years Grand Gulf might be more attractive in comparison to plants built subsequently, if construction costs continued to escalate. (Of course, certain assumptions would have to have been made regarding the construction costs of both Grand Gulf and future plants, as well as alternate fuel costs, in order to conclude that Grand Gulf would have comparatively lower costs in the future.)

NOPSI's management testified that NOPSI wanted its share of Grand Gulf to be made definite because NOPSI expected to be "short" and a purchaser of Grand Gulf in the early (expensive) years, and a fixed share would assure

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[53] *See* pp. 59-64, *supra*. To recapitulate, the method of allocation under the System Agreement was roughly as follows. Each company's relative load was determined by averaging its highest non-coincident hourly peaks on certain days. The resulting ratio of this calculation to the aggregate of such calculations for all operating companies on the Middle South System was called its "load responsibility." This ratio, when taken against the total system capacity, determined its "capability responsibility." The "capability responsibility" was then compared to the actual capability owed or under firm contract by the operating company. If the company was "short," it had an obligation to make up the difference by paying capacity-related costs to companies that were long." These costs were based on those of "participation units"—the most recent major generating unit of a "long company." The entirety of MSE's ownership of Grand Gulf capability was to be allocated as a participation unit.

that it could take advantage of the lower costs contemplated in later years. NOPSI also had a general interest in acquiring capacity that was not oil or gas fired in light of then-current conditions. (NOPSI Exh. 36 at 17-20.)

Turning to the magnitude of NOPSI's Grand Gulf share, it appears to have been determined as follows. First, AP&L was released of all of its responsibility to pay for Grand Gulf. According to Mr. Cain, because "AP&L already had in service or under construction base load generating capacity consisting of 2 nuclear and 4 coal fired units, . . . and it was determined that AP&L did not need any additional base load capacity from Grand Gulf." (NOPSI Exh. 35 at 15.) However, it is evident that other approaches could have been pursued. For example, the costs of AP&L's facilities could have been shared by other operating companies, and AP&L could have taken a share of Grand Gulf. A somewhat different version of why AP&L was freed of its Grand Gulf responsibility was given by Mr. Edwin Lupberger, then Senior Vice-President and Chief Financial Officer of MSU, as follows: "Decreasing load growth and political and regulatory pressures have led AP&L to withdraw from the Grand Gulf project." (Tr. 528; CNO Exh. 6.) Similarly, in hearings before the LPSC, NOPSI's witness here, Mr. Louiselle, testified as follows:

> It was contended that AP&L already had either in-service or planned under construction a sufficient amount of base load capacity defined as: nuclear capacity, defined by the Middle South System as base load capacity. In other words, that's how they chose to define it and therefore did not need an additional increment of base load capacity from Grand Gulf. Of course, this reallocation took place *after* everyone realized what the cost of the unit was going to be. And it is my understanding *a certain amount of pressure was brought to bear on Middle South Utilities to get AP&L out of Grand Gulf.*

(CNO Exh. 33 at 856; emphasis added.)

Thereafter, according to NOPSI, studies were performed aimed at achieving an "equitable allocation of the Grand Gulf capacity and energy among the Middle South System operating companies." (NOPSI Exh. 36 at 39.) NOPSI further states that after "extensive discussion" and a "balancing of economic factors," and based on a number of objectives[54] a preliminary allocation was arrived at in January 1980 that gave NOPSI 155 MW of Grand Gulf I and 210 MW of Grand Gulf II.[55]

However, still in January 1980, a different allocation was adopted. NOPSI states that in order to achieve a "minimization of fuel cost differences among the operating companies," additional calculations were made, pursuant to which NOPSI's Grand Gulf shares were substantially increased. (NOPSI Exh. 36 at 40-44.) However, the idea

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[54] Mr. Hurstell summarized these as follows:

1. To move each operating company toward having a relatively proportionate share of coal or nuclear base generating units.
2. To assure the benefits of base generation's lower and more stable fuel prices to those operating companies which otherwise had inadequate base generation.
3. To reduce the disparity in the relative fuel cost of energy among the operating companies.

(NOPSI Exh. 36 at 39.)

[55] The allocation to all companies, including Grand Gulf II, was as follows:

	GG #1	GG #2	TOTAL
AP&L	—	—	—
ARK-MO	50 mw	70 mw	120 mw
LP&L	615 mw	420 mw	1035 mw
MP&L	305 mw	425 mw	730 mw
NOPSI	155 mw	210 mw	365 mw
	1125 mw		

(NOPSI Ex. 36 at 40.)

of basing this increase on the equalization of *fuel* costs, when the underlying *capital* costs of Grand Gulf were far more significant, has been seriously questioned in this proceeding and has never been satisfactorily explained by NOPSI. (CNO Exh. 38 at 40-1; CNO Exh. 29 at 188-89.) In any event, this resulted in NOPSI's taking 335 MW of Grand Gulf I and 335 MW of Grand Gulf II. (NOPSI Exh. 36 at 40-44.)

In January 1980, the chief executive officers of the operating companies approved the new allocation proposals in a signed memorandum. (NOPSI Exh. 36 at 44.) In July 1980, the companies signed a Memorandum of Understanding Re: Allocation of Capability of Grand Gulf I & II ("Memorandum of Understanding") embodying the allocation approved in January. (NOPSI Exh. 36, MLH-15, No. 7.)

Thereafter, the Municipal Electric Association of Mississippi ("MEAM") withdrew from its planned 2.48% participation in the Grand Gulf project. NOPSI's management seemed to have no awareness of or curiosity about the reasons why MEAM withdrew. (CNO Exh. 29 at 137.)

In a Reallocation Agreement of July 1981, the operating companies fixed the allocation of the Grand Gulf project in accordance with the prior Memorandum of Understanding, together with an increment resulting from MEAM's withdrawal. NOPSI's share was set at 29.8% each of Grand Gulf I and II. (NOPSI Exh. 36, MLH-15, No. 11.)

A series of new agreements and amendments to existing agreements followed the fixing of new allocations for Grand Gulf, of which several are described below.[56]

A 1982 System Agreement superseded the 1973 agreement. The new agreement changed the manner of com-

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[56] The Availability Agreement was amended on June 15, 1981 (NOPSI Ex. 36, MLH-15, No. 3(b)) and on June 28, 1984 (*Id.*, No. 3(c)).

puting each company's load responsibility such that it was computed on the basis of the company's 12 most recent monthly loads occurring at the time of the system's monthly peak. Moreover, under the new agreement the participation units were priced on the basis of the "intermediate generation units," defined as units fueled with natural gas or oil, instead of the most recently installed major units of the "long" companies. (NOPSI Exh. 36, MLH-15, No. 4). The change in the System Agreement did not affect the allocation of Grand Gulf fixed for each operating company.

In addition, a Unit Power Sales Agreement ("UPSA") executed on June 10, 1982 provided that MSE would make available to the operating companies, and the latter would take, all of MSE's capacity and energy from grand Gulf I and II, in accordance with their "entitlement percentages" (NOPSI's being 29.8%). It further set forth the terms, conditions and rates for MSE to charge and contained the recital that "AP&L is executing and delivering this Agreement solely for the purpose of consenting to the terms and provisions thereof and will have no rights or obligations hereunder." (NOPSI Exh. 36, MLH-15, No. 5.)

On June 15, 1981, the Power Purchase Advance Payment Agreement was executed and was later filed with the SEC pursuant to PUHCA. It provided that the four operating companies would make an aggregate advance payment of $12,500,000 per month, the share of each to be determined in accordance with its relative payment percentage specified in the Reallocation Agreement, if Grand Gulf I were not in commercial operation by December 31, 1983. Such payments were to be made until the earlier of December 31, 1985 or the date of the commencement of Grand Gulf I's commercial operations. (NOPSI Exh. 36, MLH-15, No. 9.)

L. 1980 Hearings Before The Council

In May 1980, NOPSI filed an application with the Council seeking approval of a "capacity adjustment clause" as part of its retail rate schedule. This clause would have allowed NOPSI to pass through *automatically* in its retail rates the capacity-related costs of Grand Gulf once NOPSI began incurring charges for such costs. The hearings on this application marked the first time that the nature of NOPSI's obligations with respect to the Grand Gulf project was made known to the Council.[57]

At that time, NOPSI's management testified that the proposal would enable NOPSI to pass through the "benefits" of Grand Gulf I to the ratepayers of New Orleans. Mr. Hurstell presented a "study" which he had prepared that purported to show that New Orleans' ratepayers would benefit by $1.9 billion over the first nine years of the plant's operation. (NOPSI Exh. 36, MLH-12A.) However, the principal numbers and assumptions underlying the study were not prepared by Mr. Hurstell, but had been received from MSE, and Mr. Hurstell had not examined them critically.

During the hearing, Mr. Cain was pressed by several members of the Council regarding the propriety of NOPSI, with a total rate base of $210 million, having committed to a liability for Grand Gulf I—then optimistically esti-

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[57] At the prudence hearing, NOPSI's management asserted that the Council had been "informed" about NOPSI's participation in the Grand Gulf project, even though it was conceded that the substance of the arrangement was not put before the Council until the 1980 hearings on the capacity adjustment clause. The record of the September 17, 1980 hearing indicates that NOPSI's president asserted only that the matter had come up in 1972 at a rate hearing in the context of the then-proposed Alligator Point plant, a time when the very different commitment made in 1974 to Grand Gulf had yet to be conceived. *In the Matter of NOPSI Rate Hearing - Public Hearing Electric and/or Gas Rates* transcript of September 17, 1980 (hereinafter "1980 Hearing") at 552-53.

mated at $400 million—"without public consideration" and "without a Board meeting and without advice of counsel" and "without the approval of the Council and without the knowledge of the Council, which is the regulatory authority." 1980 Hearing at 554-45, 559-60, 575. In response, on two occasions Mr. Cain testified that if the Council were to find it inappropriate to participate in taking Grand Gulf power, the ratepayers of New Orleans would not have to bear its cost, since NOPSI would have the option of selling the capacity to other utilities. Specifically, Mr. Cain stated:

> If it is in the wisdom of this Council that it is not appropriate for New Orleans Public Service to participate in this agreement, which they will reflect on through either approval or disapproval of the capacity adjustment clause, through the approval or disapproval of any rate relief we seek as per Grand Gulf, *then NOPSI has the option of selling the capacity and marketing it which, we think will be a very attractive commodity to other electric utilities* who will view this as very, cheap, reliable power for the future.

Id. at 547. (Emphasis added.) He further indicated that

> the Council has the option either to approve our participation in this project through the capacity adjustment clause, and if subsequently it does not then and we file a rate case and they say, 'No, we are not going to allow the recovery of any rates to recover those expenses,' then that's it. They have made the judgment that New Orleans Public Service should not participate in this unit. *And then we will have the option of selling this unit and our portion of it to some other buyer.*

Id. at 560-61. (Emphasis added.)

M. Determinations By The FERC

Two principal issues, *first*, the proper allocation of Grand Gulf as set out in the UPSA, and *second*, the sharing of generation costs as prescribed by the new 1982 System Agreement, were put before the FERC in two separate cases initiated by the filing of the two agreements.[58] Although the cases were tried separately and resulted in separate written opinions of administrative law judges presiding over each case,[59] the FERC jointly decided both cases in Opinion No. 234 (31 FERC ¶ 61,305), and in its opinion denying rehearing in Opinion No. 234-A (32 FERC ¶ 61,425). The FERC rejected the Grand Gulf allocation contained in the UPSA (Opinion No. 234, 31 FERC at 61,655), and it reduced substantially the share accepted by NOPSI's management, ordering the following Grand Gulf I allocation instead:

AL&L	36%
LP&L	14
MP&L	33
NOPSI	17
	100%

(*Id.*)

NOPSI did not intervene as a party until after all the evidence had been taken in the two cases and the Administrative Law Judge had issued his initial decision. No NOPSI witness testified in the proceedings.

As indicated, in September 1980 the Council had been assured by NOPSI's president that the ratepayers of New Orleans were not bound to the costs of Grand Gulf I, and in 1981 the Council authorized a referendum which re-

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[58] The System Agreement case was Docket No. ER82-483-000; the USPA case was Docket No. ER82-616-000.

[59] *Middle South Energy, Inc.*, 26 FERC ¶ 63,044 (Liebman, J.) (1984); 30 FERC ¶ 63,030 (Head, J.) (1985).

sulted in regulatory authority over NOPSI being transferred to LPSC. However, it became evident that the LPSC was not fully protecting New Orleans' interests in the FERC proceedings. The LPSC proposed an alternative allocation scheme that favored ratepayers outside New Orleans. Under the LPSC proposal, LP&L, the largest company on the system (approximately 44% of total system load), would take only 14% of the high-cost Grand Gulf 1 plant. In contrast, NOPSI, which accounted for only 9% of system load, would take 17% of the plant. In December 1982, New Orleans moved to intervene independently in the FERC proceedings, and it recommended that NOPSI receive no more than a 9% allocation. The LPSC's position with regard to the shares to be borne by LP&L and NOPSI, respectively, was ultimately adopted by the FERC.

The FERC held that it had jurisdiction over MSE's sales from Grand Gulf under Section 201 of the FPA, 16 U.S.C. § 824 (Op. 234-A 32 FERC at 61,946-61, 61,947), and authority to modify the allocation contracted for by NOPSI and the other Middle South companies under Sections 205 and 206 of the Act. (*Id.* at 61,949.)

The FERC adopted (Op. 234, 31 FERC at 61,655) the findings of Administrative Law Judge Liebman that the UPSA allocation would cause cost disparities among the companies on the system to the "serious detriment" of NOPSI's and other Louisiana and Mississippi ratepayers. Lieb. p. 27. *Middle South Energy, Inc.*, 26 FERC ¶ 63,044 (1984) (Initial Decision) at 65,104.[60] Thus, FERC held that

[60] FERC Administrative Law Judge Head found that the UPSA allocation would result in NOPSI's having the highest costs on the system on a nine-year average basis between 1983 and 1992 inclusive, and that NOPSI would have the highest annual costs in seven of those nine years. *Middle South Energy Inc.*, 30 FERC ¶ 63,030 (1985) (Initial Decision) at 61,156-61-157. Over the nine years NOPSI's costs would average 61% above AP&L's costs, 36% above LP&L's and 6% above MP&L's. (*Id.*)

the UPSA allocation, to which NOPSI's management had agreed, was unfair and unreasonable and ordered NOPSI's share reduced from 29.8% to 17%. (*Id.*)

Part of the basis on which the FERC undertook to alter the Grand Gulf allocation was that the Middle South companies were operating as "a highly coordinated integrated electric system . . . [which] results in planning, construction and operations which are conducted primarily for the system as a whole." Op. 234, 3 FERC at 61,645. The FERC took note of the joint planning operations of the companies, particularly through their mutual participation in the MSOC. It acknowledged testimony as to the role of individual companies, such as that provided by Mr. Trumps, also a witness for NOPSI here, as follows:

> Mr. Trumps testified that a function of the Operating Committee is to make general decisions as to the size, location, and timing of the units. The specifics as to size and location, he stated, are a function of the individual companies. He described the coordination process as one in which the individual companies participate in the development of the Operating Committee's consolidated power plans. These plans are submitted to and approved by the Chief Executive Officers of the operating companies, and the Boards of Directors of the individual companies approve their own construction projects and expenditures.

(*Id.* 61,647-61,648) citations omitted.

In Opinion No. 234-A, denying rehearing, the FERC rejected charges that it had treated the Middle South system as a "monolithic" entity. Op. 234-A, 32 FERC at 61,952. The FERC stated:

> [Opinion No. 234] repeatedly recognizes the individual operating companies are intimately involved in the planning stages of new generation

> units on the system. It further recognizes that the Operating Committee . . . makes major system decisions in the form of recommendations to the Chief Executive Officers who, in turn, vote on their recommendations, and that the individual companies make final specific decisions necessary to carry out the overall system plan.

Op. 234-A, 32 FERC at 61,953.

On the basis of the degree of system integration and planning, the history of its planning nuclear plants, and the specific history of the Grand Gulf project, the FERC determined that "some form of equalization of nuclear plant costs" was necessary to establish proper rates among the MSU operating companies. Op. 234, 31 FERC at 61,655. It thus adopted the findings of FERC Administrative Law Judge Liebman, "designed to equitably apportion" the total nuclear investment costs of the Middle South System (*id.*), which resulted in giving NOPSI a 17% allocation of Grand Gulf I costs.

The FERC's decision (recently reaffirmed by the agency on remand from the D.C. Circuit) is binding here, but it is not without its own contradictions. The FERC refused to equalize the costs of all generation on the system—notwithstanding that the FERC had rejected the argument that Grand Gulf was an "anomaly" in the regular planning and construction of generating facilities on the MSU system, and had concluded that "all generation additions, including Grand Gulf, have been planned in basically the same manner." (*Id.* at 61,651.) The FERC apparently viewed other cost differences as "relatively minor compared to the cost differences for nuclear generation" (*id.* at 61,656 n. 18) (which seems to ignore the significant cost differences noted earlier), and evidently believed that overall production cost equalization would be "a substantial change from the way costs were previously allocated" (*id.*

at n. 19) (which, however, was also true of the FERC's own nuclear cost equalization formula).

The FERC confirmed that the result of its decision was "not equal rates for MSU affiliates" and it asserted that "the basic nature of regulatory control retained by the states under previous system agreements remains unchanged." Op. 234-A, 32 FERC at 61,952.

The FERC's decision established, by formula, a wholesale electric rate, allocating the cost of Grand Gulf I among NOPSI and its sister operating companies which must be paid to MSE. It did not purport to preempt matters within the Congressionally-preserved state domain of retail ratemaking. In Opinion 234-A, the FERC stated:

> [W]e concurred in [Judge Head's] discussion of the need to balance federal and state interests in exercising our jurisdiction. Furthermore, we think our opinion, taken as a whole, as well as Judge Head's discussion, which we adopted, clearly recognizes the role of the states in regulatory retail electric rates and the need to balance overlapping state and federal electric rate jurisdiction.

32 FERC ¶ 61,424 at 61,951.[61] As noted by Judge McNamara, a provision in those opinions requiring the

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[61] In a subsequent docket concerning an amendment to MSE's tariff, the FERC explicitly rejected the suggestion that it rule on even a minor matter regarding retail ratemaking. *Middle South Energy, Inc.*, Order Accepting Revised Rate Schedule for Filing and Terminating Docket No. ER86-424-000 (June 30, 1986). The FERC held:

> In reference to the Louisiana Commission's alternative request that MSE's wholesale customers be required to voluntarily pass through depreciation savings to retail customers regardless of existing rate settlement or rate orders, the request must be denied since such action would effectively require this Commission to intrude on matters within the

states to pass through Grand Gulf costs is "conspicuous by its absence." *NOPSI I*, slip. op. at 8-9. He found:

> [T]he FERC order merely prescribes interstate wholesale rates that NOPSI is obligated to pay in exchange for its share of Grand Gulf power. More importantly, there is no mandate in the FERC order for state regulatory authorities to pass through the expenses associated with NOPSI's interstate wholesale rates via an increase in intrastate rates.

(*Id.*)

It should be noted that the FERC's opinions do not address the manner, timing, or extent of recovery by operating companies of their Grand Gulf costs as retail rates. They do not address problems posed by the possibility of "rate shock." They do not address the need for a "phase-in" of rates. To the contrary, FERC Administrative Law Judge Liebman, confronted with a proposal for "levelization" (a type of phase-in), declined to exercise jurisdiction over the issue. Rather, he stated that the "design of local retail rates" was within the jurisdiction of the states; that the validity of phase-in plans would turn on its particular facts; and that advance "general pronouncements" on the subject were particularly inappropriate "in light of the clear bright line which the Federal Power Act sought to draw between Federal and state jurisdiction . . ." 26 FERC ¶ 63,044 at 65,148 (1984).

The FERC did not investigate or rule upon the prudence of the management of NOPSI or any of the individual companies in relation to the Grand Gulf plant; nor did the

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> province of retail ratemaking bodies. As noted above, it is our view that entities having jurisdiction over retail rates can take the appropriate action to require a pass-through of depreciation savings.

(*Id.* slip. op. p. 5.)

FERC indicate that it intended to preempt any inquiries into prudence at the local level. As previously indicated, one of the FERC's administrative law judges, confronted with suggestions made by Middle South attorneys that he should make implicit prudence findings, repeatedly stated "I'm not getting into that," and indicated that he could not prevent the issue from being litigated in a state forum. *Middle South Energy Inc.*, Docket No. ER82-616-000, Tr. at 228. Subsequently, the acting chairman of the FERC testified before Congress that:

> The Commission did not determine the prudence of the purchase of power by the Middle South Utilities from the Grand Gulf Nuclear Generating Station in Opinion Nos. 234 and 234-A.[62]

The FERC undertook no effort inquiry to determine what, if any, alternatives might have been available to an MSU operating company when, in light of new information and new events, the economic prospects for the Grand Gulf project changed.

N. Grand Gulf Operations And Costs; Attempts To Dispose Of Grand Gulf

In September 1974, the AEC issued construction permits for Grand Gulf Units 1 and 2, and full-scale construction began. (NOPSI Exh. 36, MLH Ex. 19-A, p. II-14.) In December 1974, Bechtel issued its first Definitive Cost Estimate and Schedule, which forecast completion of Grand Gulf I by January 1980 at a cost of $854 million. (*Id.*)

By the beginning of 1979, the projected cost of Grand Gulf I had risen sharply and its schedule had been significantly delayed. Bechtel's December 1978 Cost Forecast

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[62] Prepared Testimony of the FERC Before Subcommittee on Energy, Conservation and Power, of the House of Representatives Committee on Energy and Commerce, Hearings on Prudence Reviews (March 14, 1986).

No. 5 projected a total cost of $1.310 billion, and its then-current schedule estimated completion by July 1981. (*Id.*, MLH Exh. 19-A, p. II-15.) It was against this background and after the Three Mile Island incident, that NOPSI, in January 1980, entered into an agreement which gave it a large fixed share of Grand Gulf I. (*Id.*, p. 40.)

Thereafter, in February 1980, Bechtel issued Cost Forecast No. 6 and Schedule Revision No. 3 which projected Grand Gulf I's completion by May 1982 at a cost of $1.773 billion. (*Id.*, MLH Exh. 19-A, p. II-16.) On July 21, 1980, the Memorandum of Understanding confirming NOPSI's large fixed share of each Grand Gulf unit was signed. (*Id.*, MLH Exh. 15, Item 7.)

Bechtel's Cost Forecast No. 7 and Schedule Revision No. 4 (forecasting completion by September 1982 for $2.176 billion) was issued in March 1981. (*Id.*, MLH Exh. 19-A, p. II-16.) In July 1981, NOPSI entered into the Reallocation Agreement, slightly increasing NOPSI's share to 29.8% of MSE's 90% share of both units. (*Id.*, MLH-15, Item 11.)

Just a half year later, in March 1982, MSS, as agent for all the operating companies, sent letters to 57 regional utilities offering to sell them all or part of the capacity and energy of Grand Gulf I. (NOPSI Exh. 36, MLH-21.) At that time, MSS projected the plant to be commercially operable by February 1, 1983 at a cost of $2000/kW and $1.6/kWh. (*Id.*) MSS' offer was not accepted by any utility. (NOPSI Exh. 36 at 57.)

Construction of Grand Gulf I was nearly complete by mid 1982. (NOPSI Exh. 36 at 25.) The plant received its low power operating license from the NRC in June of 1982, and commenced fuel loading in July. (*Id.*) Thereafter, the plant was continually subjected to increasing costs and schedule delays associated with regulatory compliance. (*Id.*) Bechtel's estimates increased from $2.888 billion in October 1982 to $3.046 billion in September 1983 and to

$3.424 billion in May 1984. (NOPSI Exh. 36, MLH 19-A, at 16-17.) The NRC issued a full power operating license in July 1984. (NOPSI Exh. 36, MLH Exh. 19-A at II-17.) Grand Gulf I finally entered into commercial operation on July 1, 1985 at a cost in excess of $3.6 billion.

O. NOPSI Files Application For Increased Rates

On May 17, 1985, two days after regulatory authority was formally reinvested in the Council, NOPSI filed an application with the Council to increase its retail rates to recover the costs associated with its Grand Gulf I purchase. NOPSI's application constituted the largest and most complex rate increase proposal ever submitted to the Council. Rather than quantifying a specific level of requested rate relief, NOPSI asked the Council to approve formulary rates which would permit its recovery of all costs billed by MSE each month.

At that time, NOPSI projected that its gross cost associated with a 17% allocation of Grand Gulf I would be approximately $160,000,000 annually. NOPSI projected that the Grand Gulf I purchase would reduce the operation of NOPSI's gas-fired plants and produce off-setting fuel savings of $27,000,000 annually. This resulted in a net Grand Gulf rate increase of $137,000,000 annually.

NOPSI subsequently increased its estimates. In its August 14, 1985 response to the Council's data requests, NOPSI indicated that its 17% allocation would amount to $179,000,000 and, after fuel savings of $27,000,000, would result in a rate increase of $152,000,000 annually (roughly 50% of NOPSI's prior annual revenue requirement of $300,000,000).

On May 23, 1985, the Council introduced Ordinance Calendar No. 12,585, establishing minimum standard requirements for rate applications. It also adopted Resolution R-85-296, giving notice of the introduction of the Standard Filing Requirements Ordinance and requesting that NOPSI

immediately prepare materials necessary for expeditious consideration of its application.

Beginning June 4, 1985, NOPSI submitted to the Council a series of requests to modify or waive the Standard Filing Requirements. The Council met informally with NOPSI to discuss the filing requirements, and the Council introduced a resolution to propose certain changes. On July 11, 1985, at a hearing held to adopt the filing requirements, NOPSI's attorney requested a delay in adoption to afford NOPSI more time for consideration. On August 8, 1985, the Council adopted Ordinance Calendar No. 12,626, fixing standard filing requirements. NOPSI was requested to refile its application within 30 days.

NOPSI made a partial submission of its refiled application on September 30, 1985, two weeks overdue. On October 11, 1985, NOPSI finally completed its filing.

On July 17, 1985, after public hearing and review of its technical consultant's report, the Council adopted Resolution R-85-356A, which authorized NOPSI to issue securities in the amount of $60,000,000. The Council, on its own motion, fixed a date for a public hearing on interim rate relief. Resolution R-85-423.

At a public hearing on July 25, 1985, the Council noticed that no formal request for interim rate relief had been filed by NOPSI. By Motion M-85-326 the Council, in order to prevent any undue hardship and prejudice to the company, invited NOPSI to make an abbreviated formal request for interim rate relief, waived the standard filing requirements therefor, and pledged expedited treatment. Rather than requesting interim relief, NOPSI filed its lawsuit (*NOPSI I*) in federal district court on August 1, 1985. The district court denied NOPSI's motion for preliminary relief by oral order of August 10, 1985 and dismissed NOPSI's complaint by order of September 16, 1985 on the grounds previously indicated.

Pursuant to the district court's order of August 10, 1985, NOPSI filed a formal application for emergency relief on August 19, 1985. After hearings on August 22, 1985 and September 5, 1985, the Council issued Resolution R-85-526, granting NOPSI $28,003,000 interim rate relief.

NOPSI filed an application on September 26, 1985, seeking certain changes in and clarifications of the interim relief order. After public hearings the Council, on October 10, 1985, adopted Resolution R-85-635, which amended and clarified Resolution R-85-526 and granted NOPSI further interim relief. Resolution R-85-635 provided, *inter alia*, that the deferral period for NOPSI's uncollected expenses during the interim rate relief period could commence at the same time that NOPSI's Grand Gulf purchases began, *i.e.*, July 1, 1985. In addition, the Resolution provided that the Council could reconsider the matter of interim relief should future circumstances so merit.

On October 17, 1985, six days after NOPSI completed submission of its rate application in compliance with the Standard Filing Requirements, the Council adopted Resolution R-85-636 ("Prudence Resolution") initiating this investigation of NOPSI's prudence with respect to its purchase of power and energy from the Grand Gulf plant. The Council defined the scope of its inquiry as follows:

> The Council's investigation shall include inquiry into all aspects of NOPSI's prudence regarding its decision to enter into its arrangements to purchase a portion of Grand Gulf I for the purpose of determining what portion, if any, of NOPSI's Grand Gulf I expense shall be assumed by its shareholders, rather than passed through to its retail ratepayers. The Council shall inquire into, *inter alia*, NOPSI's justification for its Grand Gulf I purchase, its consideration of alternatives to Grand Gulf I, the nature of its liability to MSE and MSE's creditors and its efforts to minimize

> its total cost exposure for the purchase. The Council shall also investigate NOPSI's need for Grand Gulf I capacity, NOPSI's decision to mothball and/or decommission existing generating facilities within Orleans parish, the impact of NOPSI's purchase of Grand Gulf I power on its existing generating system, and its impact on its other power supply opportunities. The Council will not seek to invalidate any of the agreements surrounding Grand Gulf I or to order NOPSI to pay MSE a rate other than that approved by the FERC.

Resolution R-85-636 at 4.

The Prudence Resolution requested NOPSI to respond to a series of questions related to its prudence within 30 days, or by November 18, 1985. NOPSI did not submit a response or come before the Council to discuss its concerns about the Prudence Resolution. Instead, it initiated a second lawsuit (*NOPSI II*) in federal district court against the Council on November 14, 1985. This lawsuit was dismissed on December 11, 1985 on substantially the same grounds as *NOPSI I*. Five days later, and almost a month overdue, NOPSI submitted testimony and exhibits in response to the Prudence Resolution.

On February 20, 1986, the Council conducted a public hearing on a settlement proposal submitted by NOPSI on February 5, 1986. Thereafter, the Council and NOPSI conducted extensive negotiations resulting in a settlement of the rate case, previously described.

Meanwhile, testimony on the rate aspects of the settlement proposal was taken. Direct testimony and exhibits of consultants, testifying on behalf of the Council, were submitted on February 20, 1986. NOPSI filed its rebuttal testimony six days later. Hearings were held before John B. Farmakides, the Hearing Examiner appointed by the Council, on March 4, 5, and 7, 1986. The hearings were

adjourned to reconvene at a later date to begin the taking of testimony on the prudence inquiry.

The course of the prudence proceedings and other matters relating to the litigation and attendant appeals have been previously set forth.

PART C. PRUDENCE ANALYSIS

VI. ANALYSIS OF PRUDENCE ISSUES

We now turn to the central issue of how NOPSI's officers and directors discharged their responsibility to manage the company prudently in relation to the Grand Gulf project. The circumstances recited in the preceding section lead us naturally to focus on three critical areas: (A) NOPSI's initial and binding commitment to Grand Gulf, in which it undertook an indeterminate liability for the project; (B) The question of diligence of NOPSI's management in monitoring conditions and information regarding the project and NOPSI's options as the Grand Gulf project went forward; and (C) NOPSI's agreeing to a large fixed commitment to Grand Gulf and its failure to lessen, or hedge against, the risks of its Grand Gulf commitment and secure alternative sources of power, particularly coal-fired, during the "dynamic" period of 1979-1980.

A. NOPSI's 1974 Indeterminate Commitment to Grand Gulf

In 1974, NOPSI undertook a binding but open-ended contractual commitment to Grand Gulf, virtually indeterminate in terms of the monetary exposure it could involve. At issue here is not whether it was reasonable for NOPSI in 1974 to seek an appropriate amount of additional capacity from one or more sources. Rather, we believe that the kind of commitment undertaken here by NOPSI to a single nuclear project cannot reasonably be deemed to have been prudent utility management.

Under the terms of the Availability Agreement, NOPSI was obligated to pay for Grand Gulf in accordance with the allocation formula set forth in the System Agreement. All of the capacity of Grand Gulf owned by MSE was to be a "participation unit" and thus subject to the allocation formula. Because NOPSI had no other planned capacity additions, it would, based on any plausible forecast, be "short" and obligated to take a "substantial amount" of Grand Gulf—particularly in the early years, when it would be "relatively expensive." (NOPSI Exh. 36 at 18.) Beyond this, however, NOPSI did not know how much it would be required to take or what the price would be. This indeterminate obligation would, moreover, mature at a time sufficiently far in the future that the circumstances and NOPSI's exposure could not be accurately forecasted.

NOPSI's Senior Vice President, Mr. Hurstell, testified that in 1974, the magnitude of NOPSI's commitment to Grand Gulf could not be quantified in megawatts (Tr. 591) or in dollars (*id.*) or as a percentage of the plant (Tr. 599), and that NOPSI's monetary exposure was undeterminable:

> Q. Could you have ascertained what your monetary exposure was when you signed up, when NOPSI signed up for the plant in 1974?
>
> A. No.

(*Id.*) He went on to capsulize NOPSI's position in 1974 in the following testimony:

> Q. So there was no question in your mind in 1974 that NOPSI was going to take and pay for some of Grand Gulf?
>
> A. That's correct.
>
> Q. But you didn't know how much?
>
> A. Didn't know how much.

(Tr. 615.)

NOPSI's management took on this indeterminate obligation despite its recognition, recorded in NOPSI's board minutes in September 1972, that "steeply rising costs of nuclear plants have thrown a cloud on their possible future use by the Middle South System." (CNO Exh. 42.) The Council's expert consultant, Mr. Jack Lundberg, characterized NOPSI's situation as follows:

> By signing the 1974 Availability Agreement . . . NOPSI accepted a future fully exposed to 'steeply rising costs' under conditions where such costs were largely beyond its direct control. The Availability Agreement set no limits on NOPSI's exposure.

(CNO Exh. 31 at 13.)

Mr. Lundberg pointed out that "a major purpose of any power supply contract should be to clearly define and set limits on responsibilities and exposure to areas of risk." (CNO Exh. 31 at 13.) In contrast, he noted, the agreement here created risk without limits and definition. It did not define the percentage of the plant to which NOPSI was obligated. NOPSI's obligation could vary over time by 300 percent—that is, from 100 to 300 megawatts. In addition, the ultimate cost of the plant itself was not only difficult to forecast, but beyond NOPSI's control, because it did not own the plant and had, at best, an extremely attenuated position in the management of the project.

The risk posed by the indeterminate nature of NOPSI's obligation was made more serious by the stringency of other terms of NOPSI's obligation. Mr Lundberg noted that under the Availability Agreement,

- NOPSI was fully obligated to pay its share under the System Agreement as of the date Grand Gulf I was 'deemed to be in operation,' whether the plant was in operation or not.

- Similarly, NOPSI was obligated to pay its share of expenses that might be incurred in a "permanent shutdown" of Grand Gulf I including 'perpetual maintenance and surveillance.'
- NOPSI 'irrevocably waived' its rights to raise MSE's legal remedies to bar a suit for specific performance of the Agreement

He concluded, "In view of the stringency of NOPSI's obligations under the Availability Agreement, it was *very imprudent* to enter into an agreement with no fixed allocation of capacity to be purchased." (CNO Exh. 31 at 14, emphasis added.)

Both the circumstances surrounding and the implications of NOPSI's 1974 commitment to Grand Gulf underscore its inconsistency with prudent management. As previously indicated, NOPSI's management was already aware of "steeply rising nuclear plant costs." The rise in such costs was apparent, both absolutely and relatively. Mr. Lundberg testified that while both coal and nuclear projects were faced with new regulations (environmental in the case of coal, and safety-related in the case of nuclear), "the cost of nuclear facilities was rising more rapidly than the cost of coal and there was good reason to believe they would continue to do so." (CNO Exh. 31 at 12.)

Moreover, nuclear projects took longer to complete and were thus subject to less cost predictability and greater exposure to interim changes. In the early 1970's nuclear projects were viewed as requiring a minimum of ten years from conception to completion, while coal projects required from two to four years less time. (*Id.* at 11-12.) In addition, because of safety concerns, nuclear projects "had to be viewed as far more exposed to potential shutdowns due to changing standards and regulations." (*Id.* at 12.)

Mr. Komanoff summarized these circumstances in the following testimony:

> Nuclear power was beset with technical problems and public opposition in 1974. These had already begun to be translated into marked increases in reactor costs and schedules. While other electric generation sources also suffered from disadvantages as to cost, reliability and feasibility, nuclear ventures such as Grand Gulf were probably inherently more risky than alternatives, in 1974. NOPSI's acceptance of an unspecified and ineffectively limited share of Grand Gulf in these circumstances was imprudent.

(CNO Exh. 38 at 26.)

Moreover, NOPSI was the smallest of the operating companies, with a limited service area. Because (as will be discussed hereafter) the magnitude of NOPSI's ultimate Grand Gulf obligation did not depend merely upon its own load growth, but on factors beyond its control, NOPSI's size made it particularly vulnerable to adverse effects if the Grand Gulf project turned out to be uneconomic, as it ultimately did.

NOPSI's indeterminate exposure had obvious debilitating effects. It limited other avenues for diversification. There was no sound reason, other than the burden of its indeterminate commitment to Grand Gulf, for NOPSI not to have sought participation in AP&L's White Bluff and ISES coal projects (CNO Exh. 28 at 112) in the manner, for example, that MP&L did as previously described. Although NOPSI claimed to have plans to take 10 percent of the Wilton coal project in the late 1980's, this would have amounted to only 80 MW, was far in the future, and was at an unknown cost. Moreover, the plans for the Wilton project were themselves subject to derailment if Grand Gulf proved uneconomic, and the project in fact has never materialized.

The unquantified nature of NOPSI's obligation impeded, from the outset, not only NOPSI's ability to make other

plans but also its ability to protect itself if the project went sour. The unspecified amount of the commitment would have made it more difficult for NOPSI to structure a sale of its Grand Gulf power if circumstances merited its doing so. In fact, NOPSI relied upon the indeterminate size of its own allocation to argue against the testimony here that NOPSI should have sold substantially all of its Grand Gulf position in 1979 and 1980. (NOPSI Exh. 43 at 9.) That argument, however, merely highlights the imprudence of NOPSI's management in accepting indeterminate liabilities at the outset of the Grand Gulf project.

NOPSI's expert witness Mr. McWhinney acknowledged the "indeterminacy of the allocation" undertaken by NOPSI, but sought to defend it on the basis that NOPSI's share of Grand Gulf would increase in relation to NOPSI's load growth, and decrease if it had lower growth. It was, he thought, "preferable to a fixed share." (NOPSI Exh. 53 at 25-26.) However, on cross-examination, Mr. McWhinney conceded that NOPSI's Grand Gulf responsibility would change, not merely in relation to its own load growth, but in relation to other factors not involving NOPSI's growth or within NOPSI's control. For example, its share would be related to the low or high load growth of other companies; the retirement or abandonment of other generation resources on the system; and any changes in construction plans of new units. (Tr. 1741-42.) At the conclusion of this line of inquiry, Mr. McWhinney conceded as follows:

> Q. . . . So NOPSI's future obligation to take from Grand Gulf wasn't related solely to NOPSI's own load growth, isn't that right?
>
> A. That's correct.

(*Id.*)

There were clearly alternatives that NOPSI could have pursued, but there was no evidence that it did so. For

example, it would have been rewarding to have found evidence that NOPSI's management had insisted from the outset that NOPSI should not have to accept more than 9 percent of the ultimate cost responsibility—an amount related to its relative size and relative ability to bear risk (CNO Exh. 38 at 13) for Grand Gulf. Moreover, had limits on NOPSI's commitment been imposed at the *outset* of the project, and thereafter formed part of the factual record before the FERC, it is highly doubtful that the FERC would have felt free to allocate a large portion of Grand Gulf I to NOPSI.

NOPSI had other generation options for meeting its forecasted load so that it was not required to commit so extensively to a single nuclear project. Mr. Lundberg testified that NOPSI should have planned to diversify its additional resources; that it should have limited its Grand Gulf commitment to an amount on the order of 100 MW and satisfied the balance of its capacity needs through other projects on the system—pursuing a mix of fuel and project sources; and that it should have sought participation in one or more of AP&L's four proposed coal-fired facilities. (CNO Exh. 31 at 16-18.) He cited, as a contrasting example, the municipal utility operations of the City of Jonesboro, Arkansas which, during the same time period, reviewed more than 50 different power resources and ultimately acquired a 5% share of AP&L's White Bluff and ISES units. (CNO Exh. 31 at 16-17; NOPSI Exh. 38 at 87.) NOPSI apparently made no such investigation and did not explore participation in such units.

Despite the enormity of its 1974 commitment and its recognition that Grand Gulf was an unprecedented and "major" commitment of the company, NOPSI did not inform the City Council of its obligations under the Availability Agreement until 1980. (CNO Exh. 31 at 9.) Had NOPSI's management for any reason, whether or not justifiable, felt timorous about protecting the welfare of NOPSI's ratepayers because of pressure from MSU or others,

that circumstance could have been overcome by a timely intercession of the Council, which was empowered to regulate NOPSI. The secretiveness of NOPSI's management was itself imprudent and compounded the deficiencies we find in its actions and inactions.

Despite NOPSI's serious imprudence in this area, other events which have taken place at the federal "wholesale" level have limited our remedial powers. In its Opinions 234 and 234A, the FERC has set NOPSI's share at 17 percent of Grand Gulf I. We interpret existing law as requiring that the federally-determined allocation of Grand Gulf I costs, resulting in a wholesale rate, be binding on NOPSI and upon the Council. We therefore base no rate remedy upon the imprudence of NOPSI's management in accepting an indeterminate share in 1974 and in creating circumstances which left NOPSI subject to a formulary allocation that is nearly twice its relative size in the system. However, NOPSI's ratepayers should have no doubt that, in our opinion, their interests were neither well considered nor well served by NOPSI's management in the critical undertakings that bound NOPSI to the Grand Gulf project in 1974.

B. NOPSI Failed to Maintain Prudent Oversight Of Its Grand Gulf Obligations

As a public utility committed to purchase a substantial portion of the power of the Grand Gulf project, NOPSI should have had great concern with the progress and cost of the project. (CNO Exh. 28 at 37; CNO Exh. 29 at 112.)[63]

[63] There is, however, good reason to doubt that the incentives necessary for cost control were present here. It was expected that the costs of Grand Gulf would be passed on from Bechtel, to MSE, to NOPSI, and then to ratepayers—untempered by competition at any level. It is questionable whether this pass-through system is likely to generate the same incentives to contain and monitor costs as would be present in an unprotected commercial environment (Tr. 651-2; CNO Ex. 29 at 113), notwithstanding the prospect of subsequent administrative review.

NOPSI concedes that its commitment to Grand Gulf was a "major commitment." (Tr. 622.) It was certain that NOPSI would have an obligation to take and pay for some amount of Grand Gulf without any set limits on the price it would pay. Therefore, it had an obligation to monitor that exposure carefully during the construction of the project. In this regard, the conduct of NOPSI's management was plainly inadequate.

In 1974 NOPSI had approximately 30-40 employees comprising its upper management and associated staff (Tr. 622), a number which had grown to approximately 90 by the date of the hearing (Tr. 594). There were, nevertheless, no organized systems or procedures for maintaining oversight of NOPSI's Grand Gulf commitment. Despite the fact that information with respect to Grand Gulf came in from a variety of formal and informal sources, there was no central or even regular procedure for handling information that was received. (*Id.*, CNO Exh. 29 at 72; CNO Exh. 28 at 34-35.) Moreover, there was no committee or other instrumentality to deal in a coordinated way that information, nor was there any committee established within NOPSI to assess developments at the project from the perspective of NOPSI's interests. (Exh. 29 at 57.)

Although the cost forecasts for Grand Gulf showed an unremitting increase (CNO Exh. 28 at 64), there was apparently no one at NOPSI responsible for critical review and analyses of the cost estimates. (CNO Exh. 28 at 70.) There was no evidence that NOPSI questioned any of the assumptions that underlay, or the components making up, the cost estimates. NOPSI's president, Mr. Cain, testified:

> Q. As a buyer of the service or product that was being offered, and being the recipient of information as to how much you, as a buyer, would have to pay, you had some concern, I take it, about making sure that the cost es-

timates were accurate, or responsible; isn't that right?;

A. Yes, as part of an overall electric utility holding company which was responsible for the development of the plans for the construction of the plant, the justification for the need for the plant, and other aspects as part of that system. We were a buyer.

Q. You were a buyer, and you had that concern?

A. Yes.

Q. So, as these cost estimates came in, did you or anybody else acting under your direction ask about the assumptions that underlie those estimates, and the components of the estimates?

A. We could have, sir. I don't know.

Q. Do you recall a discussion where that took place?

A. No, sir.

Q. Did you ever direct any employee of NOPSI, officially or otherwise, to contact anybody with respect to a particular cost estimate?

A. No, sir, not that I can recall. I could well have, but I don't recall an instance.

(CNO Exh. 28 at 40-41.)

There was no coordinated review of cost increases. Apparently, Mr. Hurstell was the only person on the routing list for the cost forecasts which Mr. Cain received. (CNO Exh. 29 at 92-93.) As far as Mr. Hurstell knew, there was no one at NOPSI who sought to determine whether the cost forecasting was reliable. Instead, NOPSI relied entirely upon MSE and Bechtel. (Tr. 650.) This was so de-

spite the fact that Bechtel had an obvious self interest in the continuation of the project (CNO Exh. 28 at 66-67), and was engaged under a contract which allowed it to pass through its costs (Tr. 651).

Despite NOPSI's assumption that it could rely entirely upon MSE, Mr. Cain testified that he never participated in any discussions at the MSE board meetings, or elsewhere, dealing with the reliability of Bechtel's estimates (CNO Exh. 28 at 70) and was not aware of anybody within MSE engaged in a critical analysis of Bechtel's forecasts and their underlying assumptions. (*Id.* at 71.) (MSE itself was largely a shell organization, having a staff of no more than two to three persons and no office space of its own. Those who served in elected capacities were employees of other companies in the Middle South System.) (CNO Exh. 28 at 91-93.)

After the Three Mile Island incident occurred in March 1979—a critical event for nuclear reactor construction and costs—NOPSI failed to act prudently to assess the evolving circumstances and protect its interests. Mr. Cain testified that there were no meetings held at NOPSI with regard to the impact of the Three Mile Island incident. (CNO Exh. 71-72.) Mr. Cain never called for a cost estimate to assess any possible impact of the Three Mile Island incident on the Grand Gulf project and NOPSI's interests. (*Id.* at 74.) Instead, in the wake of the Three Mile Island incident, and despite the absence of a revised cost forecast being issued in 1979, NOPSI, in January 1980, acceded to a share of Grand Gulf that was more than three times larger than its relative size in the Middle South system.

The next cost forecast was issued in February 1980, but Mr. Cain was not aware of why it had taken so long for a new cost estimate to be prepared. He did not know whether the new 1980 forecast purported to reflect any increased costs threatened by the Three Mile Island incident, and he did not recall questioning at the time whether

the forecast did so. (*Id.* at 74-75.) While Mr. Cain assumed that someone in the Middle South System was responsible for tracking the cost of finished nuclear plants during this period of time, he could not recall who had that responsibility. (*Id.*)

Mr. Hurstell, who was the person principally relied upon by Mr. Cain with respect to Grand Gulf (CNO Exh. 28 at 12), testified that during the entirety of the year 1979, NOPSI "did not have any particular meetings" with regard to the possible impact of Three Mile Island. (CNO Exh. 29 at 84-85.) Mr. Hurstell had no appreciation that Three Mile Island might result in substantially increased costs. He testified,

> Q. Your testimony is that in the year 1979 you had no appreciation that Three Mile Island might result in substantially increased costs with respect to Grand Gulf?
>
> A. I had no idea, no, sir.

(Tr. at 668.) Moreover, it is Mr. Hurstell's position that Three Mile Island was blown up by the press. He testified:

> Q. Are you saying a disproportionate amount of attention was focused on Three Mile Island by the press?
>
> A. In retrospect I would say, perhaps.

(Tr. 789.)

Throughout these events, it appears that NOPSI's own board of directors was minimally involved and extremely passive. While Mr. Cain testified that NOPSI's board "may have been informed as to what the latest estimate of costs would be" (CNO Exh. 28 at 97), he testified that no discussions emanated from members of the board with regard to any position that NOPSI should take or attempt to take with respect to its participation in the Grand Gulf project. (*Id.*) He testified also that the board did not ask for any

information other than what had been provided to them and the there were no questions raised by them as to the implication of Grand Gulf costs for NOPSI's ratepayers. (*Id.* 97-98.) The board never raised the issue of the reliability of cost estimates that they were receiving. (CNO Exh. 19 at 61-62.) Moreover, several directors recalled no discussion of the impact of the Three Mile Island incident on the Grand Gulf project or NOPSI's obligation therefore. (CNO Exh. 17 at 19-20; CNO Exh. 27 at 39.) NOPSI's board was not consulted in advance of NOPSI's entering into the key agreements effecting the major reallocation of Grand Gulf obligations among the operating companies in 1980. Rather, the board merely ratified the documents afterwards. (CNO Exh. 28 at 119-120.)

NOPSI never sought to determine the impact of Grand Gulf on the ratepayers of New Orleans and never sought to bring the issue of ratepayer impact to the attention of the MSE board. (CNO Exh. 28 at 47.) NOPSI's management held no meetings to discuss the subject of the cost impact of Grand Gulf on NOPSI's retail customers. (*Id.* at 54.) NOPSI put no one in charge of dealing with its relationship with the ratepayers of New Orleans, and Grand Gulf apparently became a subject of concern only just prior to its commercialization.

In relevant areas, such as the possible purchase of coal fired power as an alternative, NOPSI was passive, so that if no "offers" were made to it by others, NOPSI assumed that no opportunity existed. During the discussions leading up to NOPSI's taking a large fixed share of Grand Gulf in 1979-1980, NOPSI apparently made no proposal of its own. (Tr. 461-62.) Indeed, its president had not even determined if NOPSI could object to a proposal put "forward or adopted by the system." (Tr. 464-465.)

Throughout the presentation of evidence regarding these events, there has been a curious and incredible lack of relevant documentation. Despite the fact that NOPSI's

president, Mr. Cain, testified that he made and passed around notes and sheets of information regarding Grand Gulf, none whatever were produced by NOPSI in response to the Council's discovery requests. Although Mr. Cain relied primarily upon Mr. Hurstell in discussing matters relating to Grand Gulf (CNO Exh. 28 at 12), Mr. Hurstell claims to have prepared no memoranda regarding Grand Gulf during the many years of the project, with the exception of the "study" prepared in 1980 (MLH Exh. 12). That "study" utilized cost figures for Grand Gulf supplied by an unspecified source at MSE and was designed to persuade the Council to authorize an automatic pass-through of Grand Gulf capacity costs. (Tr. at 693-694). Moreover, although NOPSI's management made vague references here to supposed MSE evaluations of the economics of Grand Gulf and the impact of Three Mile Island, there were virtually no memoranda produced evidencing an exploration of these issues.

It is difficult to avoid reaching the regrettable conclusion here that document production by NOPSI in this proceeding bears the indicia of expurgation and selective production. The absence of such materials, or the failure to produce them, is highly disturbing.

To recapitulate, there is no indication in the record here that NOPSI organized itself responsibly to deal with information and events pertaining to the Grand Gulf project. Its own board was passive and was consulted on key events after the fact. It never sought to assess the impact of Grand Gulf on NOPSI's retail ratepayers; never sought aggressively to pursue options that might have been available to the company; never questioned cost assumptions; was unconscious as to the potential impact of Three Mile Island; did not advance positions favorable to NOPSI in MSE board meetings or other "system" organizations; and ultimately, it failed to protect its own ratepayers by accepting a share of Grand Gulf which one of its own experts

has flatly testified was imprudent (CNO Exh. 33 at 853-54) and was found to be unreasonable by the FERC.

C. NOPSI Failed to take Prudent Actions in the Critical 1979-1980 Time Frame.

Summary of Analysis

1. During 1979, the Situation Changed Radically.

Problems that affected the rationale underlying, and economics of, NOPSI's relationship to Grand Gulf had been growing throughout the mid-1970's. By the end of 1976, NOPSI had made a substantial downward adjustment in its forecasted load. Concurrently, the forecasted costs of Grand Gulf had risen to almost 70% above original estimates. (CNO Exh. 31 at 21.) The need to meet load growth had been the principal rationale for Grand Gulf. While the FERC has suggested that the rationale shifted to one of fuel diversification as load forecasts fell, the increasing cost burden of the Grand Gulf project in fact threatened such diversification.

By end of 1978, projected completion costs of Grand Gulf I were $1,048 per KW, more than *double* original estimates. Increasing nuclear plant costs were not, as NOPSI's management professed to believe, merely the result of inflation. Rather, knowledgeable sources in the industry were reporting that regulatory design and safety requirements—characterized by the industry itself as "even-expanding"—were greatly increasing the duration and cost of nuclear plant construction. (CNO Exh. 38 at 58.) As an example, one study stated "The most significant effect on nuclear plant costs has been compliance with revisions to the NRC regulations and the 100 plus regulatory guides." (Ebasco Services, "Dramatic Changes in the Costs of Nuclear and Fossil-Fueled Plants," Sept. 1978 pp. 6-7, CNO Exh. 38 at 58.)

In addition, important new analyses of nuclear plant cost trends conducted at MIT, the Rand Corporation and by

Mr. Komanoff undercut the conventional industry method of estimating nuclear plant costs and showed that real costs were rising at much higher rates. (*Id.* at 48; Tr. 1823-1825.)

On top of these trends was the Three Mile Island incident in March 1979. The incident threatened major regulatory consequences for nuclear plants, which in turn meant higher nuclear plant costs.

According to Mr. Hurstell, the 1979-80 period was a "very dynamic time" (CNO Exh. 28 at 60), but he seemed inexplicably blind to the skyrocketing costs of nuclear plants, mentioning only other factors—*i.e.*, the curtailment of natural gas, the questionable availability of oil, the Fuel Use Act, and the increasing cost of oil and gas. (*Id.* at 75-79.) These factors, it should be noted, were neutral on the choice between coal and nuclear that confronted, or should have confronted, NOPSI's management. (Tr. 677.)

2. What NOPSI Did and Failed to Do.

It is useful to evaluate the corporate "state of mind" with which NOPSI approached the significant events of 1979-80. As indicated in previous sections, NOPSI (a) never questioned cost estimates; (b) never questioned assumptions underlying cost estimates; (c) did not know if the cost estimates it received after March 1979 included a factor reflecting potential cost increases attributable to Three Mile Island (CNO Exh. 28 at 164); (d) never sought a cost estimate to reflect Three Mile Island; (e) never held a meeting to discuss potential impact of Three Mile Island; (f) relied on the "system" to make cost estimates and to deal with Three Mile Island, but could not point to any particular agenda item at MSE meetings that dealt with either issue; and (g) never sought to determine the impact of Grand Gulf on NOPSI's ratepayers.

NOPSI, and apparently MSE as well, was either oblivious to, or intentionally ignored, statistical analyses showing major upward cost trends in nuclear plants even before the Three Mile Island incident. (Tr. 761.) Moreover, NOPSI's management apparently believed that the Three Mile Island incident was overblown and had "no idea" that it might result in substantially increased costs. (Tr. 668.)

There is no evidence that NOPSI even explored any alternatives. (CNO Exh. 31 at 21-22.) Instead, in January 1980, within 9 months after Three Mile Island, NOPSI acquired a large fixed share (about 29.8%) of Grand Gulf, an unfinished nuclear plant. (Tr. 686.)

Instead of critically examining its circumstances, NOPSI's objective was to put the best face on its Grand Gulf commitment in order to secure an advance, automatic pass-through of Grand Gulf costs to its ratepayers before the true costs were known. In 1980, with costs continuing to rise, NOPSI filed an application with the Council seeking approval of a "capacity adjustment clause" that would have enabled it to pass through Grand Gulf costs in retail rates automatically. (Tr. 692-4.) At that time it presented a "study" prepared by Mr. Hurstell (NOPSI Exh. 36, MLH 12A, 12B) that purported to show $1.8 billion in benefits to the ratepayers from Grand Gulf over 12 years (Tr. 682-3). Its purpose was to persuade the Council that "even with this increased cost of Grand Gulf that it would be economical." (CNO Exh. 29 at 80.)

NOPSI's management did not know whether or how Three Mile Island effects were reflected in the cost estimates (*Id.* 161-164), but relied entirely on MSE to supply cost information. NOPSI engaged in no critical examination of the information it received. (*Id.* Tr. 683; 164). Moreover, the key chart in Mr. Hurstell's "study" presented to the Council in 1980 was itself misleading. The columns on the chart were labeled so as to compare "fossil only" generation to a "fossil and nuclear" mix. Although the term "fossil" normally includes coal-fired power (Tr. 689), in Mr. Hurstell's chart, substantially no coal-fired power

was included. (Tr. 688-689.) Thus, the chart could easily have been misunderstood as showing that nuclear power costs had been analyzed and compared to coal-fired alternatives, with favorable results, but this was not the case.

Set on justifying Grand Gulf, NOPSI's uncritical commitment undoubtedly impaired any disposition to explore opportunities to diversify (Tr. 679). Under its own plans as they stood in 1980, NOPSI was to acquire only 80 megawatts of coal, almost a decade later (*Id*; CNO Exh. 33 at 859)—assuming, of course, that NOPSI or others had the financial resources to build new coal plants at that time. However, Grand Gulf I was to exhaust those resources.

3. What NOPSI Should Have Done.

In 1979, and following the Three Mile Island incident at the latest, NOPSI should have engaged in a major reevaluation of its power supply commitments (CNO Exh. 38 at 18). NOPSI's own expert witness, Mr. McWhinney, testified that NOPSI should have "used all information that was available" (Tr. 1801) and that in reaching a decision prudently, "all available, relevant, meaningful information should be brought to bear" (Tr. 1877). NOPSI failed to inform itself adequately, and was wholly unaware of important materials bearing upon nuclear plant costs directly relevant to its Grand Gulf commitment.

Had NOPSI's management undertaken to become adequately informed, it would have concluded, at the least, that Grand Gulf posed a major risk to it and was likely to be uneconomic and result in a major liability. Mr. Komanoff's testimony, which we find credible, is to the effect that such a review, if undertaken in 1979, would have shown that NOPSI's Grand Gulf I commitment could cost NOPSI an excess lifetime cost of $320 million over a coal-fired alternative, even using certain "conservatisms" favorable to NOPSI's position on Grand Gulf. (CNO Exh. 38 at 9.)

NOPSI should have attempted to minimize these Grand Gulf risks. It should have actively pursued available generation alternatives. In particular, NOPSI, instead of taking a 29.8% fixed share of Grand Gulf, NOPSI should have sought the least amount possible. But even assuming that NOPSI was required to take a share as a matter of "system" responsibility (or under a FERC ruling[64]), it should have sought to lessen and spread its risks through off-system sales of its share of Grand Gulf, just as it said it could do. (*Id.* at 10.) At the same time, NOPSI should have contracted for coal-fired sources of power to diversify and support its program of displacing oil and gas fired generation. (*Id.*)

Detailed Analysis

4. NOPSI's Failure to Deal Realistically with the Rising Cost of Grand Gulf; the "Ostrich" Policy.

The record in this case shows that the cost forecasts of Grand Gulf were skyrocketing even before Three Mile Island incident (CNO Exh. 36, MLH-19A at II-14 and 15). Thus, estimated construction costs had risen to $1.3 billion by December 1978, compared to the original estimated cost of only $.854 billion in 1974. Throughout this period, NOPSI never questioned the underlying assumptions of, or undertook any critical analysis of the estimated costs (CNO Exh. 28 at 40-41), despite its large stake in the outcome. NOPSI purported to rely upon cost estimates received through MSE, without examining their basis or validity, and it used them in seeking an automatic pass-through from the Council in 1980 (NOPSI Exh. 36, MLH-

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[64] NOPSI's management has testified throughout these proceedings that it expected the FERC ultimately to make the managemental decision as to how to allocate the costs of Grand Gulf—but this viewpoint, at best, matured only in later years and appears substantially to be hindsight. The idea of leaving major management decisions to a government agency is itself questionable.

12 and 12A), at which time it projected great benefits from Grand Gulf. (CNO Exh. 29 at 108).

During the period of time in which Grand Gulf was constructed, cost forecasting by those involved in the nuclear industry was based on the so-called "engineering estimation" method. It was, in general terms, similar to the method by which a contractor estimates the cost of building a house (Tr. 1755). NOPSI's witness Mr. McWhinney described the process as follows:

> Q. . . . What was the technique that was used by the industry?
>
> A. The technique, as I understand it, is that an engineer will estimate the amount of material by various quantities and the amount of labor required to design and construct a plant, and using specific unit costs, extend those costs to come up with costs to complete, usually adding some kind of management reserve or contingency to come up with a cost estimate, just the same way a builder estimates the cost of building a house for you. (Tr. 1755.)

There were several potential problems with the engineering estimation method. It was judgmental and susceptible to underestimation. It relied upon estimates as to how long various phases were going to take and how much elements were going to cost. Moreover, judgments had to be made as to the regulatory environment. Regulation affecting nuclear plant construction and safety matters had been recognized as the principal cause of escalating real costs of nuclear plants (Tr. 1760; CNO Exh. 38 at 58-59), but absent an empirical basis for estimating their effect, there was considerable opportunity for underestimation.

A far deeper problem affecting the engineering estimation method was that it was being invalidated by the

facts, as conceded by one of NOPSI's own witnesses, Mr. McWhinney:

> Q. [O]utcomes are useful to evaluate the validity of a technique for estimation, aren't they?
>
> A. Yes, that's correct.
>
> Q. . . . Was the engineering estimation technique being validated by the outcomes?
>
> A. Mr. Wruble, the answer to your question is that the plants cost more than they were estimated ten year ago.
>
> Q. They cost more. They cost more, did they not, on an annual basis that exceeded the rate of inflation.
>
> A. I think that's correct.
>
> Q. All right.
>
> So that as I understand it, your testimony is that while the—the people in the industry were using engineering estimation to project a completed cost of a nuclear plant, the cost was always coming in substantially higher than the original estimate. Can you think of a case where it didn't?
>
> A. No, I can't.

(Tr. 1769-70)

Beginning in the mid-1970's, a number of statistical studies were made public that undercut the conclusions and validity of the engineering estimation method. These studies showed that nuclear plant costs were increasing at a rate that was far in excess of both inflation and conventional cost estimates. The first was published in December 1974 by Professor I.C. Bupp of the Harvard Business School in conjunction with researchers at the

Massachusetts Institute of Technology. (Tr. 1651-2; NOPSI Exh. 38 at 46.) There followed two studies by William Mooz, published by the Department of Energy and the Rand Corporation respectively, in 1978 and 1979. (Tr. 1652; NOPSI Exh. 14 at 46.) These studies were widely distributed and discussed in the academic community, in federal agencies, at the Electric Power Research Institute, and other institutions. (*Id.*) In addition, Mr. Komanoff, a witness here, published in 1976 a book applying statistical analysis to nuclear and coal plant on-line performance (Tr. 1654). Thereafter, he used the same analytical methods to assess nuclear plant capital costs and made his conclusions known in testimony before a state regulatory commission in October 1978 (Tr. 1507). He disseminated his findings in a speech in September 1978, and they were in turn reported in *Nucleonics Weekly* (Tr. 1507), a publication which was read or known by "most people in the industry." (Tr. 1842-43). Drafts of material which became Mr. Komanoff's 1981 book, *Power Plant Cost Escalation* ("*PPCE*"), were circulated in 1978. (Tr. 1508.) In addition, Mr. Komanoff testified before the Subcommittee on Energy and the Environment of the House Interior Committee in July 1979 as to the results of his statistical analysis of nuclear and coal plant costs and the implications of Three Mile Island. (Tr. 1663-4.)

The statistical method used by all three of the foregoing analysts is a widely accepted technique called "regression analysis." In contrast to the "engineering estimation" method, it utilized hard data from completed nuclear plants to measure the actual rates of increase in costs during the period and also to produce estimates of the effect on costs of various causal factors. (Tr. 1468).

NOPSI's witness Mr. McWhinney characterized the significance of the results being reached by use of this technique as follows:

> Q. Let me do it this way. William E. Mooz, in his Rand Corporation study in 1978, determined that nuclear costs were increasing at a rate far in excess of that which had been presupposed in engineering estimates made during the 1970's, did he not?
>
> A. Yes, he did.
>
> Q. And Mr. Komanoff at the same time period has done exactly the same thing, hadn't he?
>
> A. Yes . . . . .

(Tr. 1782).

Mr. Komanoff described the significance of his work as follows:

> Q. So, as I understand it, your determination as to cost increases in 1973 was not a projection of the future, but was based on hard data as to what in fact had occurred during the period of your studies?
>
> A. That is correct.
>
> Q. Now can you tell me roughly what the annual cost increase implied by the aggregate cost increase which you mentioned was?
>
> A. Yes, sir. Converting this 150 percent increase over the total seven year completion period can be done in two different ways. If that total cost increase is broken down by date of completion, then the rate of increase averages about 13 percent a year. If instead it's broken down by the date of construction start, the increase is 24 percent a year . . .
>
> Q. Let me understand the significance of this. As I understand your testimony, you found that there were real cost increases in nuclear

plants, not inflationary cost increases, in the range of 13 percent annually, or 24 percent annually, respectively, based upon the categories you mentioned, isn't that correct?

A. Yes, sir.

Q. Now, this evidence that you brought forward based on statistical examination, was that consistent with or adverse to the figures that the nuclear industry had been giving out with respect to how much nuclear plants were going to cost?

A. These figures contradicted the prevailing beliefs and statements at the time concerning the rates of past increases in nuclear costs, the likely future costs of nuclear plants, and the relative competitiveness of nuclear and coal.

Q. And the implication thereof was that nuclear plants were going to cost more.

A. Yes.

(Tr. 1470-1475.)

The reason offered by NOPSI for its—and apparently MSE's—failure to make any use of regression analysis to develop the probable completion costs of Grand Gulf is its contention that the method "does not properly reflect what NOPSI knew or should have know in 1979" because it was "a new method . . . that was not at the time in wide use in the industry" (NOPSI Exh. 53 at 5). The method, NOPSI's witnesses contended, "was not widely known . . . and is, therefore, not an appropriate technique to use in a retrospective analysis." (*Id.* at 29).

While NOPSI witnesses (Tr. 1773) and its counsel (*see* Tr. 1641-1648) stated or implied that the statistical method used was novel or radical, in fact the evidence showed

that it was a standard method, widely used in the industry for other purposes (Tr. 1649). Mr. Komanoff testified,

> . . . The method . . . is the most conservative, traditional and commonplace method used for analyzing empirical data. It is used by all of these parties that you and I have both discussed here. It's used throughout the Federal Government. It's used throughout the electric utility industry to do load forecasting. It's used by the technical and policy communities par excellence. What these people had not done, was to apply this standard tool to measuring the current level of costs and the rates of past and current increases in the costs of nuclear plants. And I believe that it would have been logical, professional and appropriate for them to have done so at that time.

(Tr. 1646-7).

NOPSI's witness Mr. McWhinney conceded both the method's use elsewhere in the industry (Tr. 1775) and that the method was the *standard* technique for determining trends.

Q. The method itself is not radically different. It's an acceptable method.

A. That's correct. It is not different. It is an accepted statistical method.

Q. As a matter of fact, would it be fair to say that *the method is the standard technique for distilling trends from empirical data.*

A. *That's correct.*

(Tr. 1774; emphasis added.)

The remarkable failure of Middle South, NOPSI and "the industry" to use regression analysis and to take account of the conclusions of the works of Bupp, Mooz and

Komanoff can be explained on the basis that it was not in their interest to do so, as reflected in the following examination of Mr. McWhinney:

Q. The technique was new, regression analysis was new, that's your testimony?

A. No. The answer is regression analysis was not new.

Q. The use of regression analysis to evaluate trends in nuclear plant costs was, as far as you knew, new as of about 1978.

A. That's correct.

Q. And the information being generated by the application of that technique was less favorable to nuclear plant cost predictions than that being generated by the honored technique of engineering estimation, isn't that right?

A. That's correct. Cost estimates were higher than traditional estimates.

Q. Right. And in this—and the technique, the use of regression analysis to evaluate cost trends in nuclear plants was not accepted by—or not in widespread use or accepted by the nuclear industry in the period 1978 to 1980, according to your testimony, isn't that right?

A. What is correct is that it was not in widespread use. I do not know if it was accepted or used, but I believe that it was known by people within the industry who were making decisions.

Q. Now your testimony states on Page 30, and I quote—This is referring to 1979. "In the 70's—It was widely believed that in the 1970's, that, as both the industry and the NRC

reached maturity, operating performance would improve." That's number one. Two, "regulatory turmoil would cease," that's number two. And three, "costs would level off, or even fall in real terms." Do you see that?

A. Yes.

Q. Now if you had read Mr. Mooz's report at that time and the conclusions that I read to you and that we reviewed, how would you have felt about those beliefs after having read that report?

A. They're in stark contrast.

Q. They're in stark contrast. And is their implication significant or insignificant with respect to the costs of nuclear plants?

A. They were significant, and I'm sure they received adequate attention in the minds of the decisionmakers in the industry who were concerned about what was causing these prices costs to increase.

Q. Is industry acceptance, in your view, Mr. McWhinney, a measure of—a useful measure of management prudence or imprudence?

A. The answer is no. Because, as I've testified, my evaluation of the prudence of a decision is based on either the information management had or could have had, and this information was available, and could have been used, if it were not.

Q. Could have been used, regardless of whether or not it was in widespread use?

A. That's correct.

Q. Because you're a management strategist in part, aren't you? Haven't you helped man-

agement strategize in terms of its business decisions?

A. Yes, I have.

Q. And so you would be interested . . . in the technical biases of the sponsor of particular informational views, would you not, if you were considering those in advising management?

A. Yes sir, I would.

Q. And these views were not acceptable, not favorable to the nuclear industry, were they?

A. Whose views are we talking about?

Q. Excuse me, the views that were resulting from Mr. Komanoff's analysis and Mr. Mooz's analysis were very unfavorable to the nuclear industry, weren't they?

A. I wouldn't categorize them as unfavorable. They were different. They had higher cost estimates than the output analysis.

Q. They had higher cost estimates, and cost was a very important factor, was it not, in determining what kind of plant was to be built with respect to the generation of electrical energy?

A. Yes. I've said the least cost option is the criteria that ought to be used in evaluating a decision in the industry.

(Tr. 1836-40.)

Thus NOPSI's position that Mr. Komanoff's conclusions should be rejected because they "differed radically" from the "prevailing view" in the industry in 1979 (NOPSI Br. at 43, 48-49) would require our giving credit now, to a position that deserved no credit then. There was clear

evidence that the "prevailing view" was manifestly inconsistent with empirical results and data then available to NOPSI and to the "industry."

That NOPSI (and as far as is known, MSE) failed to inform themselves of and use a standard analytical technique to evaluate the probable cost of Grand Gulf stands in such stark contrast to practices in other areas that it suggests more than inadvertent avoidance. For example, NOPSI's witness, Mr. Trumps, testified as follows:

Q. Well, as part of your job, do you, with respect to forecasting, do you investigate the or appraise the validity of the techniques used for forecasting?

A. Yes.

Q. Do you concern yourself with proposed new techniques for forecasting to see whether or not you can integrate them in your operation?

A. Yes.

Q. Do you make people responsible for making sure that they are aware of current techniques for load forecasting?

A. Yes. . . .

(Tr. 1030-1032.)

In contrast, despite the fact that regression analysis was the standard technique for distilling trends from statistical data, and despite the public dissemination of information regarding its application to nuclear plant costs, NOPSI and the "system" claim to have been wholly ignorant of it.

5. NOPSI's Failure to Deal With the Impact of the Three Mile Island Incident

It is important to understand that, even before the incident at Three Mile Island, there were major trends re-

lated to nuclear plant safety issues that would continue to increase Grand Gulf costs. Four principal sources of impending and future safety-related changes, and thus higher costs, were apparent in early 1979:

> (1) Recent nuclear regulatory requirements had been issued that had not been imposed upon completed plants. These would be imposed on plants under construction. Even plants completed in the late 1970's did not reflect regulatory requirements then in effect, because the NRC often exempted plants under construction. This was particularly true of NRC requirements concerning manufacturing, testing and performance criteria for structural materials and basic components. The codes and standards for these were in a state of almost continual revision during the 1970's.
>
> (2) New regulations could be expected because of adverse operating experiences at existing nuclear plants. Development of remedial regulatory requirements lagged considerably behind problems and accidents occurring at operating plants. For example, new rules arising from the 1975 fire at the Browns Ferry reactor were still being drafted in 1979. NRC regulations in early 1979 probably reflected operating experience accumulated through 1976 and 1977.[65]
>
> (3) It was likely that there would be future adverse experiences, based on (a) the increasing population of plants and (b) the increasing rate of detection of safety risks. This was evidenced by a far larger number of safety-related bulletins issued by the NRC during the 1976-79 period than in the early 1970's.

[65] To illustrate the magnitude of the revisions involved, it appears that the NRC had issued 143 Power Reactor Regulatory guides through 1978. Twenty-six of these were being reviewed as of March 1979, and another 25 new guides were under development. Virtually all portended higher costs for new plants like Grand Gulf.

> (4) A growing list of "unresolved safety issues" portended high costs. These were matters disclosed during individual licensing reviews for nuclear plants, which were held for resolution on a general basis. In early 1979, there were 34 items of potentially major safety significance outstanding. Lists of these issues were available to the public. Many of the issues related to plants such as Grand Gulf. (CNO Exh. 38 at 50-57.)

As previously indicated, the industry recognized changing construction and safety regulations as the principal factor in nuclear plant cost increases. (*Id.* at 59.) The factors listed above would have indicated, in 1979, that the costs of Grand Gulf would have been approximately 40% higher than a comparable nuclear plant completed at the end of 1978. (*Id.* at 60.)

On March 28, 1979 an accident occurred at Unit II of the Three Mile Island nuclear power plant south of Harrisburg, Pennsylvania. Within two weeks, the President appointed a "President's Commission on the Accident at Three Mile Island," (Tr. 1272) to investigate what was characterized as "the worst accident in the history of commercial nuclear power generation."[66] The accident focused national press attention on safety issues. As the Commission noted,

> After many years of operation of nuclear power plants . . . the belief that nuclear power plants are sufficiently safe grew into a conviction. One must recognize this to understand why many key steps that could have prevented the accident at Three Mile Island were not taken. The Commission is convinced that this attitude must be changed to one that says nuclear power is by its

[66] Report of The President's Commission on The Accident at Three Mile Island, Oct. 1979, p. 1. (hereinafter "TMI Report").

> very nature potentially dangerous, and, therefore, one must continually question whether the safeguards already in place are sufficient to prevent major accidents. A comprehensive system is required in which equipment and human beings are treated with equal importance.

As a result, major changes were recommended in the operations and organization of the NRC. Its Chairman, Mr. Hendrie, who testified in this case, was demoted. (Tr. 1287.) The incident had a profound impact on the licensing, construction time and regulatory scheme—and thus on the costs of nuclear plants. As Mr. Hendrie testified, the Three Mile Island incident, "came to dominate the thoughts in nuclear regulation for balance of that year and during the time since. . . ." (Tr. 1277).

In the months following, there was substantial, well-publicized appreciation that TMI would have a profound impact on nuclear plant construction and costs. The reasons were summarized by Mr. Komanoff as follows:

(1) The Three Mile Island incident undermined the credibility of both nuclear plant developers and regulators. It involved a degree of core damage that had previously been rejected by industry experts as impossible and which was thus placed outside the "design basis" used to set the required strength of reactor containments and the systems designed to mitigate accidents.

(2) The accident underscored the ineffectiveness of NRC regulation and industry self-regulation when it was revealed that precursor accidents elsewhere[67] had not led to

[67] The Commission notes, for example, that a related accident had previously occurred at the Davis-Besse plant and was investigated by both the NRC and the reactor manufacturer. Despite warnings by the manufacturer's engineer, no information calling attention to the need for corrective actions in similar circumstances was provided to utilities prior to the Three Mile Island accident. (TMI Report at 10, 29.)

remedial steps. In addition, it exposed the practice of "grandfathering" plants, by which new safety regulations were not applied to existing plants.

(3) Because the damage at Three Mile Island and much of the actual sequence of events during the accident extended beyond the "design envelope" assumed in safety analyses, the NRC was forced to extend the spectrum of design base accidents used for safety assessments. Particular attention was focused on core-damage accidents, and the plant systems designed to ensure that plants could deal with major core damage.

(4) The NRC was forced to abandon its "single-failure" approach to accidents and to consider what would happen if two systems or components failed independently of each other.[68] (CNO Exh. 38 at 62-64.)

The TMI Report, released October 1979, continued "serious criticism" of the NRC (Tr. 1294). Mr. Hendrie affirmed that Three Mile Island precipitated a "wide-ranging review" of the whole structure of nuclear regulation, that such review was foreseeable in 1979, and that it had the potential to affect the costs and construction of Grand Gulf. (Tr. 1342-43.) This perception of the potential impact of Three Mile Island was evident as early as May 1979 and certainly no later than the release of the TMI Report in October 1979. (CNO Exh. 38 at 66-67). In July 1979, for example, Mr. Komanoff testified before the House Interior Committee that estimates of the increased capital costs of nuclear plants attributable to TMI were "absolutely open-ended." (Tr. 1663.)

The attitude of NOPSI's management toward the Three Mile Island incident is one that approaches determined denial. NOPSI's management witnesses seemed programmed to ignore TMI entirely. In testifying about the "very dynamic time" (CNO Exh. 60 at 29) and "dynamic

[68] See TMI Report, p. 52.

changes" occurring in 1979 (*Id.* at 76), Mr. Hurstell, despite *several* opportunities to do so, failed to mention either the greatly increased costs of Grand Gulf or the Three Mile Island incident. (*Id.* at 77-81.) After some prodding, Mr. Hurstell finally testified that "I guess that's correct that [TMI] was a factor at that time". (*Id.* at 81.)

The factors that Mr. Hurstell did mention in his prehearing deposition were the price of oil and gas, the Iranian situation (bearing on the availability of oil), NOPSI's lack of a firm fuel supply for 1100 MW of generation, the Fuel Use Act curtailing use of gas and oil as boiler fuel for generation, and the United Gas curtailments of natural gas to NOPSI, but *not* Grand Gulf costs and *not* Three Mile Island. (*Id.* 77-78). The factors mentioned by Mr. Hurstell, as has been noted, were neutral as between the choice of coal or nuclear fired power (Tr. 677)—which should have been a principal matter under consideration by NOPSI at that time, had it acted prudently. Months later, in his testimony at the hearing, Mr. Hurstell added, as a "concern" in 1979, the Clean Air Act—apparently to buttress NOPSI's position here that there were also concerns over increased costs of coal fired generation based on antipollution regulations. (Tr. 663.) But again he failed to mention the Three Mile Island incident. (Tr. 665.)

When Mr. Hurstell was asked whether he thought it might have been "a little risky" for NOPSI to "load up" on a share of an incomplete nuclear plant (a fixed share of 335 MW from Grand Gulf I and 335 MW from Grand Gulf II, Tr. 677) just after the Three Mile Island incident, the following colloquy ensued:

> Q. Now, again, do you think that having NOPSI load up on incomplete nuclear plants after Three Mile Island was a little risky?
>
> A. No. Our studies at that time indicated that our customers would benefit to the tune of about 2.3 billion dollars over a 12-year period

> of time and it was to their financial benefit for us to do that.
>
> Q. And we're going to come to that in a moment, but just for now, that 2.3 billion dollar estimate was not done until 1981, isn't that correct?
>
> A. That's correct. But 1981 was 1.8 over a shorter period of time.
>
> Q. That's fine, but the number you just mentioned was not until 1981?
>
> A. All right. I'll mention the one in 1980, 1.8 billion in a nine-year period of time.
>
> Q. And that number—and I said we'll come to that in more detail later, but for the record now, that number was calculated based upon your projections of the completed cost of Grand Gulf at that time?
>
> A. Not my projection, it was Middle South Energy's projection.
>
> Q. So you just took their projection and worked it out?
>
> A. I had to do that.

(Tr. 682-683.)

Thus, Mr. Hurstell's attempted justification of alleged savings (embodied in MLH-12A and 12B) was simply a spreadsheet extrapolation of numbers supplied by MSE (Tr. 683). Mr. Hurstell had no idea what assumptions had been used in the MSE figures for Grand Gulf, nor whether an adjustment for the impact of Three Mile Island was reflected in the figures. (Tr. 709; CNO Exh. 29 at 164.)

Mr. Hurstell testified not only that there were no meetings at NOPSI with regard to the impact of Three Mile

Island on Grand Gulf costs because of alleged reliance on MSE, but also that he was not concerned about the Three Mile Island incident because no one "knew" what the impact would be:

> Q. All right. Now, were there any meetings at NOPSI with regard to Three Mile Island and the effect it might have on NOPSI's Grand Gulf costs in, say, the period of ten or eleven months following Three Mile Island?
>
> A. No, and for a very good reason.
>
> Q. I don't know if there can be any good reason but what is the reason you would offer?
>
> A. The reason is that we relied upon the expertise that was assigned to overlook the Grand Gulf project and that was MP&L.
>
> Q. Weren't you concerned yourself? You were a major buyer; you're now thinking about a commitment of 670 megawatts and there's Three Mile Island; you don't hold a meeting?
>
> A. Because Three Mile Island we didn't know the impact at all. I know it was a significant impact that happened, but what was going to be the impact on the nuclear energy industry nobody knew in 1980, I'll say.
>
> Q. No one knew for sure, and didn't that bother you more than anything, there was a significant event that had not been quantified in a way you knew about, yet you took a risk on an incomplete nuclear plant?
>
> A. I can tell you my major concern at that time.
>
> Q. No. Were you concerned about that?
>
> A. I'll say no, I was not concerned. . . .

(Tr. 684-686.)

The result of NOPSI's inattention to unfolding events was that it was left ignorant of what prudent management should have known, and others did know, about the potential impact of Three Mile Island. Mr. Hurstell testified,

> Q. I think that at the time you had no—your testimony is that in the year 1979 you had no appreciation that Three Mile Island might result in substantially increased costs with respect to Grand Gulf?
>
> A. I had no idea, no, sir.

(Tr. 668.)

In rebuttal, NOPSI charged that Mr. Komanoff's (and others') views on the underlying nuclear plant cost trends, and the related impact of Three Mile Island, were outweighed by other authorities. Thus, Mr. Hurstell stated in prepared testimony as follows:

> "Speaking from NOPSI's perspective in 1980 Mr. Komanoff's views were overwhelmed by the abundance and quality of analyses provided by other credible sources from industry and the federal government."

(NOPSI Exh. 37 at 32.)

As a basis for this assertion, Mr. Hurstell referred to several analyses attached as exhibits to his prepared testimony. (*Id.* at 31-32.) At the hearing, he testified that all the analyses were examined in anticipation of NOPSI's making its January 1980 commitment for a large fixed share of Grand Gulf. (Tr. 757.) On cross examination, Mr. Hurstell's testimony as to reliance upon, and use of, the cited materials turned out to be wholly unfounded. Specifically: The Gibbs and Hill Report (NOPSI Exh. 27, MLH-27) was first published on January 28, 1980 and could not have been relied upon by NOPSI (Tr. 758). Moreover, lan-

guage, said by Mr. Hurstell in his prepared testimony to be from the report and to show a continuing advantage of nuclear over coal (*viz*, "nuclear continues to show a significant advantage over coal," *Id.* at 31), was not in the report at all, but in a transmittal letter (Tr. 759), and referred to inflation, *not* the impact of Three Mile Island. (Tr. 760-1, 763.) The report itself had raised an open-ended concern about the cost impact of Three Mile Island (Tr. 764-5), just as Mr. Komanoff had (Tr. 1541), as Mr. Hurstell so conceded under cross-examination:

> Q. . . . [W]ouldn't you agree that the report is indicating that there was a problem -with Three Mile Island which will, in fact, have cost consequences and they are at the present undeterminable?
>
> A. Yes.
>
> Q. Open-ended?
>
> A. I believe at this time there are other entities such as the N.R.C. which are estimating a, $25,000,000 plant estimate at that time.
>
> Q. We will take these reports one by one, but, you see, if you talk about another report while I am asking you about this report, that's sort of an escape hatch, and I can't get you to talk about this report. So I need you to focus on this one. If you looked at it at the time as a prudent manager, that is the conclusion you would have come to, isn't it?
>
> A. That's correct.

(Tr. 769.)

Another report, the *National Energy Outlook* (NOPSI Exh. 37, MLH-26) was first offered as one that NOPSI relied upon in 1979 (Tr. 771), but it was a *1976* report, and Mr. Hurstell testified on cross examination that NOPSI

did not rely upon it in making its Grand Gulf commitment in January 1980. (Tr. 772.) Another, the *Environmental Report* (NOPSI Exh. 37, MLH-23), was prepared in March '79 by MP&L and did not in fact purport to reflect any of the costs of the Three Mile Island incident. (Tr. 775.) Moreover, Mr. Hurstell was unaware of the sources of information used by MP&L in producing the report. (Tr. 776.)

When the testimony turned to other reports—such as copies of two speeches by L.F.C. Reichele, one entitled "*The Economics of Nuclear vs Coal*," October 30, 1979 (MLH Exh. 28) and another of the same date by the entitled "The Urgent Need for More Base Load Electric Generating Capacity" (MLH Exh. 29A)—it turned out that Mr. Hurstell could not say that anyone at NOPSI reviewed the reports. More troubling is that the reports were not even found in NOPSI's files. Rather, they had been taken from LP&L files by an employee there at Mr. Hurstell's request in order to draft prepared testimony in this proceeding. (Tr. 781-786.)

The truth appears to be that in 1980, NOPSI's management never even considered Komanoff's work or that of Bupp and Mooz (Tr. 721), and it likely never read any of the reports which it filed as part of NOPSI's prepared testimony. Furthermore, Mr. Hurstell's attempt to testify as to NOPSI's reliance upon unspecified other reports was properly made subject to a motion to strike (Tr. 885) and is of "little value," as the Hearing Examiner correctly concluded. (Tr. 887.)

Turning to the issue of the potential quantitative impact of Three Mile Island, we find reasonable and well-founded Mr. Komanoff's contention that NOPSI should have estimated that the regulatory impact of Three Mile Island would add about 25 percent to the capital costs of Grand Gulf. Such estimate was based on a particularized analysis of the impact of Three Mile Island by Komanoff, previously

discussed. (CNO Exh. 38 at 61-68.) It was offered as a "reasonable, probably conservative figure." (*Id.* at 68.)

To be precise as to the substance of Mr. Komanoff's position, he testified that NOPSI's management should have used a range of figures in order to show both the high and low ends of possible exposure. (Tr. 1628-29). He believed that, from the perspective of 1979, about 15 percent was the low end, and the high was "absolutely open ended."

In rebuttal, NOPSI's witness, Dr. Perl, asserted that Mr. Komanoff's 25 percent figure was excessive (when added to the 40 percent increase estimated to account for regulatory changes already unfolding and previously described.) However, since the real capital costs of nuclear plants had more than *doubled* in just the half dozen years since the early 1970's, a 25 percent estimate appears reasonable.[69] There was a clear prospect that Three Mile Island would give rise to extraordinary demand for new actions to increase nuclear plant safety. (CNO Exh. 38 at 69.)

NOPSI also offered the testimony of Mr. Hendrie, former NRC Chairman. His testimony that the NRC staff had, in 1979, estimated the TMI regulatory impact at $20-50 million per unit, cannot be given great weight because of the witness' own concessions as to the low quality and origin of the estimate, which was not based on any study, and was "quick and dirty." He further testified that the NRC cost estimates were "uniformly" viewed by industry as underestimations. He also noted that the NRC did not

[69] Indeed, Mr. Komanoff's estimate as of 1979, based on the 25 percent figure, was that Grand Gulf would cost $1475/KW, and turned out to be low. The actual cost at completion was substantially greater—$2253/KW (both figures in 1984 dollars without AFUDC). (CNO Exh. 38 at 69.) Actual results in 1984 are not a proper basis for evaluating a utility's prudence in 1979, and we do not rely upon them for that purpose.

have statutory authority to consider cost factors. (Tr. 1296-1299.)

Finally, NOPSI's assertion that the 25 percent Three Mile Island factor proposed by Mr. Komanoff should be discounted because Mr. Komanoff used a 17 percent factor in his book *PPCE* is not well-founded. The book characterizes the 17 percent figure as "conservative" (CNO 39, p. 283), whereas choice of a conservative figure by NOPSI in assessing Grand Gulf costs was not appropriate in the circumstances. In particular, Mr. Komanoff testified that prudent management should have considered a *range* of estimates. It is clear that if NOPSI had done so, it would have appreciated the seriousness of its possible exposure, and protective action would have been indicated. Moreover, use of the 17 percent figure would not greatly reduce the cost/benefit ratio of Grand Gulf to coal, *i.e.*, it would be reduced from 1.235 to 1.195.

In summary, NOPSI's assumption of a large fixed share of Grand Gulf reflects, at best, a corporate atmosphere of indifference; and at worst, an effort to postpone public awareness of NOPSI's serious predicament. NOPSI's witness, Mr. Louiselle, testified in a related proceeding that the allocation took place "after everyone realized what the cost of the unit was going to be." (CNO Exh. 33 at 856). AP&L was allowed by the "system" to withdraw from Grand Gulf participation on the basis of decreasing load growth and "political and regulatory pressures." (Tr. 528.) A group of municipal electrical electric companies, organized as the Municipal Electric Association of Mississippi ("MEAM"), dropped out of the Grand Gulf project sometime in 1980, but NOPSI's management, in particular, seemed to have little knowledge of why it did so. (CNO Exh. 29 at 127-138.) NOPSI, on the other hand, subscribed for a disproportionately large 670 MW share of Grand Gulf I and II, and had no plans for the purchase of coal-fired power, except for 80 MW almost a decade later. It remained unaware of important analyses of nuclear power

costs, dismissed the importance of the Three Mile Island incident and failed to explore other options.

6. NOPSI Should Have Realized, in 1979, that the Cost of Grand Gulf Power Would Be Uneconomic.

Mr. Komanoff testified that, if NOPSI had employed a standard method of statistical analysis and had taken the impact of Three Mile Island into consideration, it would have determined in mid-1979 that the lifetime cost of Grand Gulf was likely to be about 20 percent higher than that of contemporaneously available coal-fired power. NOPSI's acceptance of a 29.8 percent share of Grand Gulf I (or 335 MW) "consigned the utility to an excess lifetime cost of approximately $320 million compared to available coal capacity, as costs could and should have been seen in 1979 during its negotiations leading to the 1980 Reallocation Agreement." (CNO Exh. 38 at 9.) Details of the calculation are set forth in Exhibits CK-2 *et seq.* of the Komanoff testimony. (*Id.*)

As it turned out, of course, the disparity between the costs of Grand Gulf and coal-fired power was much larger even than projected by Komanoff and has resulted in lifetime costs, by today's estimates, over *triple* those of coal-fired power. (*Id.* at 11.)

NOPSI's attempt here to undercut Mr. Komanoff's conclusions was not well-founded. NOPSI's expert witness suggested that the Council should make two major changes in the assumptions used by Mr. Komanoff (Tr. 1716).

a. Capital Additions.

The first change would involve deleting Mr. Komanoff's estimate of the cost of capital additions to both coal and nuclear plants. (NOPSI Exh. 53 at 41.) A deletion of capital additions would result in subtracting $500.8 million from the life cycle cost estimate of Grand Gulf I, but only $94.7 million for the coal alternative. NOPSI argued that costs for capital additions were not recognized as significant factors until after 1979. It pointed to the fact that the term "capital additions" was not mentioned in Mr. Komanoff's book *PPCE* or in certain testimony that he gave in 1981. (*Id.* at 39). However, capital additions were in fact treated in *PPCE* under the name "interim capital replacements." (Tr. 1550-52.) While NOPSI pointed out that in *PPCE*, regression analysis had not been used to project the costs of interim capital replacements, Mr. Komanoff answered satisfactorily that the *PPCE's* focus was almost entirely on *capital* costs,[70] and other costs were treated only in a summary fashion. (Tr. 1625-26.) In circumstances where NOPSI needed to evaluate, in a prudent manner, its Grand Gulf exposure, there would have been no reason for it not to have used standard statistical analysis for all its relevant costs. NOPSI certainly had the financial resources to engage such a study. (Compare Tr. 1625.)

b. Operation and Maintenance Costs.

The second change suggested by NOPSI was that operation and maintenance ("O&M") costs should be equalized for coal and nuclear, because, it says, such was done by Mr. Komanoff in *PPCE*. However, the analysis there involved a coal plant with a "scrubber," not comparable to ISES, which was the basis for alternate coal costs here. (Tr. 1635.) Equally important, Mr. Komanoff noted that in *PPCE* the O&M costs were treated in the same manner as capital additions—*i.e.*, only summarily. (Tr. 1635-39.) (Moreover, the ratio of O&M costs for a nuclear to a coal plant without scrubbers was stated in *PPCE* at 2.2-1, not

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[70] This was an important point. *PPCE* is subtitled "Nuclear and Coal Capital Costs, Regulation and Economics." At the outset it states its objective as follows: "The book investigates nuclear and coal *capital* (construction) costs. . . ." (CNO Ex. 39 at 1; emphasis added.) The first ten of twelve chapters deal wholly with capital costs. Chapter 11, to which NOPSI refers, is entitled "Non-Capital Cost Factors" and contains only summary treatment of a number of other factors.

the 1-1 ratio claimed by NOPSI.) (Tr. 1638; CNO Exh. 39.)

NOPSI's witness Dr. Louis Perl argued that Mr. Komanoff incorrectly evaluated historic trends in computing nuclear O&M costs by relating such costs to unit vintage and age, instead of to time. (NOPSI Exh. 46 at 3, 10.) He asserted that Mr. Komanoff's approach assumed that the historic effect of regulation had been to drive up the costs for only new nuclear units, while it has in fact increased costs over time for both old and new units. Even if we accepted the premise that units of all ages were affected, it does not follow that a correlation to vintage implies an impact exclusively on new units, but rather that they are affected more, which appears sensible. Moreover, Dr. Perl's calculations did not carry forward the trend to project future O&M costs, presumably on the assumption that (despite persistent growth in O&M costs in the 1970's and the impact of Three Mile Island) such trends would not continue, which seems unreasonable. It is therefore difficult to assign great weight to Dr. Perl's position. In addition, Dr. Perl's presentation on this point was, by his own concession, not fully developed. (Tr. 1372-1376).

c. Pricing Coal-Fired Alternatives.

Apart from proposing the two major charges noted above, NOPSI also accused Mr. Komanoff of using impermissible "hindsight" because, in attempting to determine the costs of a coal-fired alternative in 1979, Mr. Komanoff used 1983-84 costs for AP&L's ISES coal-fired plant. (Tr. 1509-1512.) To the contrary, Mr. Komanoff used data as it existed in 1979-80 and took the approach noted with respect to ISES only as a direct result of NOPSI's blanket refusal here to provide data relating to other companies in the Middle South system. Because of this, Mr. Komanoff was obliged to reconstruct this data as it would have existed in 1979, taking note that AP&L was then engaged in building two identical coal-fired units—ISES

and White Bluff, and that in 1979 White Bluff was almost complete. (Tr. 1515.) However, he did so in ways that involved conservatisms not favorable to his position (Tr. 1513-15), and this resulted in computations *more* favorable to NOPSI than would have resulted from using cost estimates actually available in 1979. (Tr. 1679-80, 1515-6.)

In this connection, Dr. Perl testified that Mr. Komanoff's cost projections for a coal-fired alternative were understated because he used adjusted White Bluff fuel costs as a surrogate for those of ISES, while in fact, as stated in Mr. Trumps rebuttal testimony, the costs of ISES were about 15% higher than those of White Bluff. (NOPSI Exh. 46 at 11.) However, Dr. Perl apparently failed to note that Mr. Komanoff had used a *higher* fuel cost escalation factor than that set forth in Mr. Trumps' testimony—the result being that if Mr. Trumps' base fuel cost and escalation rate had been substituted for those of Mr. Komanoff, the net effect would have been to *reduce* the fuel cost of the coal-fired alternative, which would work to NOPSI's disadvantage here. (Tr. 1525-26.)

Similarly, in reconstructing the capital costs for ISES, Mr. Komanoff used the actual ISES costs from 1983-4, which in real dollars were six percent *more* that White Bluff. His calculations "thus took on that six percent burden, which I am not sure that I would have done in 1979, . . . to be conservative." (Tr. 1516.) In addition, while Dr. Perl argued that Mr. Komanoff should have used a statistical method for the projection of ISES costs (NOPSI Exh. 46 at 11), this would seem to ignore the fact that ISES and White Bluff were identical, and that the costs of White Bluff were substantially established in 1979—thus presenting a more reliable basis for calculation.

d. NOPSI's Selective Use of Cost Assumptions.

A large part of NOPSI's cross examination of Mr. Komanoff involved requiring him to do recalculations based upon assumptions or factors favorable to NOPSI, but pro-

hibiting him from taking into account any countervailing considerations. Mr. Komanoff was, for example, directed

> (a) to accept NOPSI's (actually, AP&L's) projection of White Bluff fuel costs, but to use Mr. Komanoff's own assumed escalation rates for such costs, rather than those of NOPSI (Tr. 1529)
>
> (b) to accept the maximum of ranges when favorable to NOPSI—such as a 25 percent increase in coal O&M costs (Tr. 1668); and the minimum when favorable to NOPSI—such as the nominal amounts contained in *PPCE* for "interim replacements." (NOPSI Brief pp. 54-66.); and
>
> (c) to alter the values in Mr. Komanoff's regression equation so as to adjust certain figures when favorable to NOPSI, but not to do so if unfavorable to NOPSI. (Tr. 1698.)

This approach to the calculations was properly dismissed by Mr. Komanoff as follows:

> Q. . . . Now, I want to ask you, Mr. Komanoff, I want you to assume that an estimator in 1979 had made the calculations of the cost of Grand Gulf and the counterpart coal costs that were the subject of these calculations, just as Mr. Schultz directed you to do today, would you have regarded that as a professional product?
>
> A. No, I would not. Any analysis or any conclusions in which an analyst systematically employed assumptions at one end of a range would obviously not be a professional work product.
>
> Q. And adding to that the fact that you were asked . . . to cap certain factors and not cap other factors, would you have regarded that

> in gross as an unprofessional product if you had been the recipient?
>
> A. Yes, I would have.

(Tr. 1673-74.) In our view, management's knowing use of such an analysis to reach decisions on important matters would have been imprudent.

e. Role of Grand Gulf II.

NOPSI's witness, Dr. Perl, also argued that Mr. Komanoff's calculations incorrectly estimated the cost of Grand Gulf I because they assumed that it would be a single-unit project. He asserted that the cancellation of Grand Gulf II was not contemplated in 1979, and that MSU and NOPSI should not be held to have anticipated that it would not be possible to complete the Grand Gulf II unit. (NOPSI Exh. 46 at 3, 9-10). "It was only much later," Dr. Perl stated, "that increases in capital costs and interest rates made it necessary to defer Unit 2." (*Id.* at 10.) However, in 1979 construction on Grand Gulf II was minimal. If we accept, as we do, that a prudent analysis conducted in 1979 would have shown that Grand Gulf I was likely to be uneconomic, the cost trends would have been even more corrosive with respect to Grand Gulf II.

It is difficult to see how the completion of Grand Gulf II could have been deemed likely to anyone but its most dogged proponents. At the very least, NOPSI should have assumed the potential cancellation of Grand Gulf II as part of the range of prospects comprising its costs in 1979. There is no evidence that it did so.

7. NOPSI Should Have Sought to Reduce its Grand Gulf Risk.

We must start with the overriding observation that NOPSI's managers were clearly not, in 1979-1980, committed to take actions that would protect NOPSI's interest. Rather, NOPSI's management was apparently caught up

in implementing the overall strategy of spreading the burden of Grand Gulf to areas where regulatory and political resistance was lowest, while publicly trying to pass off NOPSI's Grand Gulf commitment as a great "benefit." NOPSI acceded to AP&L's escaping its commitment entirely, while NOPSI committed itself to 29.8 percent of Grand Gulf—an amount that one of its own expert witnesses, Mr. Louiselle, had previously characterized as imprudent. (CNO Exh. 33 at 853). Mr. Louiselle testified in a related proceeding that the "reallocation took place after everyone realized what the cost of the unit was going to be." (*Id.* at 856.) Yet, as previously indicated, in September 1980, NOPSI's officers were before the Council, seeking an automatic Grand Gulf cost pass-through by means of a capability adjustment clause, and testified that this would result in great benefits for ratepayers in New Orleans. (CNO Exh. 29 at 62-63.)

NOPSI made no Grand Gulf allocation proposal of its own, and NOPSI's president made no effort to resist the excessive Grand Gulf allocation and was even unsure of NOPSI's rights within the system to refuse to take so large an allocation. (Tr. 464-65.)

It is important to note that the FERC subsequently reduced NOPSI's allocation to 17 percent. This action mitigates the *results* of NOPSI's management imprudence because it curtailed NOPSI exposure by 12.8 percent of Grand Gulf. The FERC's action, however, in no way undercuts the negative judgment to be reached here on the prudence of NOPSI's management. Rather, it reinforces it.

Acting prudently, NOPSI should have reduced the risk of its Grand Gulf obligation by selling off as much of its Grand Gulf power as possible, considering all the circumstances, and by contracting for coal-fired power to displace its oil and gas-fired generation. (CNO Exh. 38 at 10.) Whether or not NOPSI had or would get an "involuntary"

allocation from the "system" or the FERC, it was *not* "involuntary" for NOPSI's management to fail to explore a possible resale of part or all of its Grand Gulf power in order to reduce its exposure to the potential adverse economic impact of that nuclear project. This is not a difficult concept. Any prudent businessman, anticipating that his commitment to an obligation may prove excessive or uneconomic—say, a commitment to office space or raw materials—would take steps to "hedge" against or lessen the risks of that commitment through, say, subletting, or contracts for the future disposition of parts of the materials.

NOPSI's president twice stated in his testimony before the Council in 1980 that NOPSI could sell its Grand Gulf power to other utilities, and that it would do so if the Council so desired. However, NOPSI's witnesses here sought retroactively to raise barriers and hindrances to such a sale by NOPSI. Such testimony is of little weight in view of the history of off-system sales on the system, and Mr. Cain's contemporaneous representations to the Council. There had previously been off-system sales of participation in generating plants owned by Middle South operating companies. (CNO Exh. 29 at 32.) Moreover, off-system sales of ISES and White Bluff participation were made by AP&L (NOPSI Exh. 40 at 6-7). While Mr. Trumps sought to distinguish these on the basis that the buyers were established "wholesale customers" of AP&L, the very fact that AP&L had off-system wholesale customers illustrates instead the ability of a Middle South operating company to deal off-system. Mr. Trumps testified as follows:

> Q. . . . The entities that you referred to were entities to which AP&L sold at wholesale? Isn't that right?
>
> A. Yes. They are approved rate schedules.
>
> Q. Were they on system companies at the time that they were wholesale customers? Were they members of the Middle South System at

the time they were wholesale customers of AP&L?

A. No, they were not.

• • •

Q. So there had been transactions with entities no part of the Middle South System which involved those companies, whatever the legal form of the transaction, buying power that was generated by entities on the system, whether or not by a purchase or as a participation in a plant, isn't that right?

A. That is correct. You can go on—not only Arkansas but Louisiana Power and Light and Mississippi Power and Light had wholesale customers.

(Tr. 1053-7.) NOPSI's attempt at the hearing to revive this distinction was not persuasive. (Tr. 1072-3.)

Mr. Trumps also testified that a change made in the 1982 System Agreement reflected the existing practice of off-system sales.

Q. You stated in the second full paragraph quote, "The new service schedule in the 1982 System Agreement also established the principle that if a company has excess generating capacity, the other companies have the right of first refusal." Do you see that?

A. Yes.

Q. Why was it appropriate that that rule be established?

A. Why was it appropriate it be established in the 1982 System Agreement?

• • •

A. Okay. This particular principle is in there

which *would obviously allow an individual operating company to make an off system sale if the other companies within the Middle South System do not choose to acquire it for themselves.*

Q. That is the way I read it.

(Tr. 1048-9; emphasis added.)

Several NOPSI witnesses sought to raise other entanglements to an off system sale, arguing *e.g.*, that if NOPSI had sold a portion of its Grand Gulf entitlement off-system and had sought to replace it with coal-fired generation, it would have had to buy 130% of the displaced power in the form of coal-fired generation because of reserve requirements. (Tr. 1236-7.)

At one point in the hearings, until objection was made, counsel for NOPSI and one of its expert witnesses apparently coached Mr. Trumps on answers to questions so as to make it appear that NOPSI was "trapped" by the system—*i.e.*, that it could not avoid additional allocations of Grand Gulf to make up for any amount which it sold off-system (1078-1079). However, Mr. Trumps ultimately testified that there were procedures that would have allowed NOPSI to sell off-system without increasing its Grand Gulf allocation. (Tr. 1080-1085.)

It should be noted that a sale off-system by NOPSI of part of its Grand Gulf power entitlement would not have undercut any financial obligation—established by the system or by the FERC—that NOPSI might have had with respect to Grand Gulf I. NOPSI, for example, could have remained financially responsible for its portion of Grand Gulf. A part thereof would have been sold to and paid for by one or more customers secured by NOPSI. The payments received would have been used by NOPSI to discharge its obligation to pay wholesale costs for its portion of Grand Gulf.

As indicated, NOPSI's president specifically testified before the Council in September 1980 that NOPSI could sell its Grand Gulf power off-system:

> "NOPSI has the option of selling capacity and marketing it which we think will be a very attractive commodity to other electric utilities who will view this as very cheap, reliable power for the future." (Tr. 792; Transcript of Sept. 17, 1980 Hearing at 547.)

And at another point,

> "[W]e will have the option of selling the unit and our portion of it to some other buyer." (Transcript of Sept. 17, 1980 at 561.)

Mr. Hurstell also testified that NOPSI could have sold its Grand Gulf power in 1980:

> Q. Now you have also testified that Grand Gulf power was marketable in 1980, is that right?
>
> A. Yes.

(Tr. 793.)

Furthermore, in March 1982, MSS, acting as agent for each of the Middle South operating companies (except AP&L which had been relieved of its Grand Gulf share), offered "all, or any part of, the capacity and energy" from the Grand Gulf I Nuclear Unit for sale to 57 different utilities. (NOPSI Exh. 36, MLH-21.) There were no takers. By that time, however, the cost forecasts for Grand Gulf had risen so as to make the power virtually unsalable. (Tr. 795; CNO Exh. 29 at 142-149.)

Despite NOPSI's representations to the Council in 1980, NOPSI's witnesses argued that, as a matter of theory, no one would have bought any of NOPSI's Grand Gulf share in 1980 because, they said, if it were "prudent" for NOPSI to sell, it would have been "imprudent" for a buyer to

purchase. (NOPSI Exh. 34 at 9.) Mr. McWhinney referred to the proposal to sell as a "greater fool" theory. (NOPSI Exh. 53 at 43.)

This view misses the point of the testimony and the realities prevailing in 1980. NOPSI conducted no prudent, critical examination of its Grand Gulf obligations. Had it done so, it would have found plausible the prospect that Grand Gulf would result in a massive liability. At the time, however, this would have been a forecast and not a certainty, as it is now. Moreover, prudent planners would have assessed a *range* of possible results. (Tr. 1628.) Given uncertain times and the imperfect foresight that inheres in any forecast, NOPSI could well have found one or more buyers—including buyers cognizant of the risks in nuclear power cost estimates. While NOPSI, a relatively small utility, was overloaded with nuclear commitments to both Grand Gulf I and Grand Gulf II and had virtually no coal ownership, utilities elsewhere with no nuclear generation could have viewed a purchase of some portion of Grand Gulf as a means of diversification. NOPSI, having made *no* attempt to seek a buyer when it should have done so, at a time when the company was publicly touting the prospective "benefits" of Grand Gulf and its president twice assured the Council as to the availability of buyers, cannot now be heard to say that there would have been no buyers.

In light of NOPSI's representations to the Council, the Council did not conduct a further inquiry, in 1980, into NOPSI's involvement in Grand Gulf. Moreover, in 1981, the Council agreed to allow a referendum to transfer regulatory control over NOPSI to the LPSC, a move that proved to be detrimental in the proceedings before the FERC. Although the Council does not base its decision here on NOPSI's 1980 representations, NOPSI, by any fair standard, should be deemed equitably estopped to deny that it could not have sold power off-system and that the New Orleans' ratepayers now must bear the full burden of its imprudence.

The Council declined to approve the capacity adjustment clause proposed by NOPSI.

Mr. Hurstell, contrary to his prior testimony that Grand Gulf power was marketable in 1980, asserted a belief that there would have been no customers in 1980 for NOPSI's Grand Gulf power. His testimony, however, referred only to a few utilities (NOPSI Exh. 37 at 36), not the large number later solicited by MSS. Moreover, it cannot be squared with either Mr. Cain's testimony that the power could be sold; Mr. Hurstell's own testimony that the power was marketable in 1980; or the efforts made in 1982 to market the power.

Finally, the fact that NOPSI's share of Grand Gulf I was not a fixed amount (until NOPSI committed to a large share in 1980) does not excuse NOPSI's inaction. In the circumstances prevailing in 1979, NOPSI could be *sure* that it would be required to take (or would have access to) a sizeable share of Grand Gulf I, and certainly could have styled contracts giving it a right to sell a significant portion to others. Moreover, contractual clauses dealing with unexpected events would have been possible, if indeed they were necessary. Uncertainty is inherent in business decisions and did not entitle NOPSI to do nothing in the circumstances described.

8. NOPSI Failed to Explore and Take Advantage of Opportunities to Purchase Coal-Fired Capacity as an Alternative to Nuclear Power.

Because NOPSI was determined to portray Grand Gulf as a cheap source of energy, it never sought alternative sources (principally coal-fired) as part of its program to displace oil and gas. Moreover, as NOPSI confirmed in response to the Council's data request number PC-4, it never undertook any comparison of Grand Gulf costs to coal-fired alternatives. (CNO Exh. 38 at 40.)[71]

[71] Mr. Hurstell testified that a coal-fired alternative was not included in the "study" set forth in NOPSI Ex. 36, MLH-12 and 12A, because there was no coal capacity available (Tr. 691, 699), which does not appear to have been true, as indicated in the text that follows.

NOPSI assumed a passive role, and did not consider purchasing any share of White Bluff because it "was not made available to us" (Tr. 502)—although forty percent of the plant was sold to non-system companies. (NOPSI Exh. 40 at 6.) NOPSI's president claimed to have discussed an opportunity to buy participation in the ISES coal plant but did not pursue it because of NOPSI's plans for Wilton. (Tr. 503.) However, NOPSI had no concrete commitment for the Wilton coal plant at any time. Moreover, the Wilton project was, in any event, almost a decade off; NOPSI's anticipated share of the project's capacity was relatively small (80 MW); and the likelihood of NOPSI's participation in Wilton was itself rendered problematical by the looming costs of Grand Gulf.

It is highly probable that coal-fired power was available to NOPSI during relevant period. For example, MP&L apparently began consideration of purchasing participation in ISES by no later than January 1980. The matter was actively discussed and negotiated in that year, and it was completed in 1981. MP&L's purchase involved 400 MW. Total sales to others by AP&L from the 4 units comprising White Bluff and ISES amounted to 1984 MW. (CNO Exh. 38 at 36.) There is reason to assume that NOPSI would have been able to participate also, had it actively pursued the matter, instead of passively assuming that no coal-fired power was available

In addition, coal-fired power was available from the Southern Company for at least a five year period—certainly long enough to give NOPSI an opportunity to let the "dynamic time period" settle and to seek other alternatives. While Mr. Hurstell claimed that he ignored this opportunity because Southern Company's coal-fired power was not available for the life-of-the-plant, this was certainly

not a prerequisite to its being valuable. (Tr. 699-704; 911-913.) In related testimony before the LPSC, Mr. Hurstell stated that short-term purchases represented useful opportunities:

> "Question: Mr. Hurstell, you just finished telling me 20 minutes ago that one year purchase of White Bluff or two year purchase of White Bluff or three year-year purchase of White Bluff is just as good as a permanent purchase of a unit, didn't you?
>
> Answer: Yes, sir.

(*See* Tr. 702-703.)

In contrast to NOPSI, MP&L's planning department performed its own analysis of ways to displace oil and gas generation, which led to the purchase of 25 percent (400 MW) of AP&L's ISES coal plant (NOPSI Exh. 38 at 41)—even though MP&L was the Middle South system's agent for the construction of Grand Gulf.

The record here reveals a situation in which one act of imprudent management led to other acts of imprudence and missed opportunities. NOPSI's acceptance of an excessive share of Grand Gulf I, and its commitment to extolling its illusory benefits, disabled it from participation in other, more beneficial projects. Mr. Cain testified before the LPSC in 1983 in response to cross-examination by the City's attorneys, as follows:

> Q. What are the ownership percentages of that unit [ISES] sir?
>
> A. I know the Arkansas Electric Co-op owns a percentage, Arkansas Power & Light owns a percentage. Now how—I think Arkansas and Mississippi own the majority, 51% and the remainder is owned by the Arkansas Co-op.

> Q. Will you accept, subject to check, that Mississippi owns approximately 25% of the Independence Unit?
>
> A. Yes.
>
> Q. That is one example of one of the smaller operating companies on the Middle South System buying a portion of coal fired generation at the same time that it will have other nuclear fired generation, is that correct?
>
> A. That is correct. And that opportunity, likewise, would have been made available to LP&L and NOPSI, but it could not be afforded.
>
> Q. It couldn't be afforded because NOPSI and LP&L were getting such a high allocation of Grand Gulf power, is that correct?
>
> A. That may be one reason sir. It may be because we did not have the rates that gave us the financial viability at the time to make the commitment.
>
> Q. Well, if they got the same allocation of Grand Gulf power that Arkansas is getting, they certainly would have been able to afford 25% for participation in the Independence coal-fired generating station, is that not true?
>
> A. I don't know if that would be true sir.
>
> Q. What would you suppose sir in your best judgment as the Chief Executive Officer of LP&L and NOPSI?
>
> A. I would assume that it would be true, but I don't know it to be true.

(CNO Exh. 30(c) at 104.)

In summary, despite the concerns NOPSI expressed about not putting all its eggs in one basket (see *e.g.*, Tr. 851), in January 1980, many months after TMI, and in the face of rapidly escalating nuclear costs, NOPSI failed to explore alternatives, failed to diversify and—without critical examination—committed to 670 MW of two units of an unfinished nuclear plant. At that time it had an unfirm expectation of attaining only 80 MW of coal, which would come on line, if ever, about a decade later. (Tr. 679-80.)

By failing to sell its Grand Gulf power as it said it could do, and by failing to acquire a source of coal-fired capacity, NOPSI had not only exposed itself and its ratepayers to extraordinary costs, but it also had abandoned one of the claimed rationales for Grand Gulf, the need to diversify. Thus, Mr. Cain testified in 1983 before the LPSC, again in response to cross-examination by the City's attorneys, as follows:

> Q. Now, with respect to NOPSI's mix for fuel and base load generation, all of NOPSI's eggs for the present decade up until at least 1992 will be in the nuclear base load basket, is that true.
>
> A. Base load generation, yes sir.
>
> Q. And that is in one basket in fact, it's the Grand Gulf Nuclear Generating Station, is that correct?
>
> A. That's correct.
>
> Q. Now, sir one of the reasons why NOPSI was originally interested in getting involved in a fuel diversification program, was the possibility of fuel interruption for oil and gas, isn't that true?
>
> A. That's correct.

> Q. And you did not want to be stuck with one source of base load generation that would be susceptible to potential shut-down or interruptibility, is that correct?
>
> A. That's correct.
>
> Q. Now, sir if there is an interruption for any reason in the Grand Gulf Nuclear Station, what impact will that have on NOPSI's base load generation from now until 1992?
>
> A. It would be necessary to purchase replacement power from some other entity.
>
> • • •
>
> Q. So all of NOPSI's eggs in terms of base load generation are not only in one generating station, but they are in the highest incremental cost generating station in the System, is that true sir?
>
> A. One of the two highest yes sir.

(CNO Exh. 30(c) at 101, 103.)

We find that NOPSI's conduct, throughout, fell far short of prudent utility management.

VII. EVIDENCE REGARDING ECONOMIC IMPACT OF POSSIBLE REMEDIES

A. Procedural Background

At the initial prudence hearing, written testimony submitted by both NOPSI and the City dealing with the economic impact of possible imprudence remedies was admitted into the record without cross-examination, on the basis that a subsequent hearing might be held to deal with that matter in detail. On May 20, 1986, the Council advised the Hearing Examiner to convene such a hearing. We set dates for discovery and the submission of additional tes-

timony, which were later rescheduled, because of other obligations of both the Council and the participants. Our letter to the Hearing Examiner dated August 29, 1986, set final dates for submission of direct testimony by all participants on September 30, 1986, followed by rebuttal testimony on October 10, depositions thereafter and the commencement of hearings on October 21, 1986. As it turned out, NOPSI submitted no direct testimony, but rather filed "rebuttal" testimony on October 10, 1986 in response to direct testimony submitted by others.

The first hearing on the economic impact of possible remedies took place from October 21 to 24, 1986. During the course of the hearing, it became clear that the economic impact might be materially dependent upon the operation of federal tax laws. Tax reform legislation was under consideration during the summer and fall of 1986, and the Tax Reform Act of 1986 was enacted while the October 1986 hearing was in progress. NOPSI submitted an evaluation of the impact of the new tax law at the close of the October hearings (NOPSI Exhs. 75 and 76), but it has since stated that this was preliminary and should not be relied upon. However, it was apparent that, because of the new tax legislation, reconsideration of the testimony was necessary.

By letter dated November 5, 1986, the Council established a schedule for testimony, discovery and hearings limited to the impact of the Tax Reform Act of 1986. At NOPSI's request the schedule was extended. By letter dated December 2, 1986, the Council set a new schedule which called for a hearing to be held on February 24, 1987. It was held and concluded on that date. Following the submission of transcript changes and telephonic conferences, the Hearing Examiner advised the Council by letter dated April 16, 1987 that the record had been completed, and he submitted to us a certified index.

At the outset, it should be noted that an assessment of the economic impact of a remedy on NOPSI is not usually obligatory. NOPSI would not have the right to demand that it be undertaken. As the intervenors here correctly point out, a regulator has no general obligation to set rates so as to keep a utility solvent notwithstanding its imprudence. However, the Council believes that it has the right, and an obligation to the community, to investigate the impact on the financial health of the utility and consider that interest along with the ratepayers' interest in prudent utility management, in the overall interest of the ratepaying community. Moreover, there are special circumstances here. Although we believe that a disallowance based on the imprudence of NOPSI's management in retail matters not within the FERC's jurisdiction is fully within our authority, we are reluctant to take action that might prevent, although indirectly, NOPSI's paying its Grand Gulf costs, given the present legal climate and the prior indications of the federal courts.

B. Overview

As indicated above, the economic impact of possible remedial actions was initially assessed by the City's consultants, with NOPSI assuming a "rebuttal" role—although this sequence was not intended by the Council. The approach taken by the City's consultants was based upon financial projections created by using NOPSI's own internal computer models. The existence of NOPSI's models came to light in an earlier stage of the ratemaking proceeding when, on February 5, 1986, NOPSI's senior financial vice president, Mr. McLetchie, filed "Additional Testimony" dealing with NOPSI's projected financial condition. This testimony prompted data requests to NOPSI by the Council's consultants which sought the basis of the financial projections upon which Mr. McLetchie had relied. On April 7, 1986 NOPSI responded by providing computer printouts showing projected sources and uses of funds for a number of years.

On July 23, 1986, in connection with the remedy phase of the prudence proceeding, the Council's consultant's filed a data request seeking "complete financial forecasts," based on NOPSI's computer model, given several scenarios and assumptions specified by the consultants. The scenarios or "cases" included one in which there was no disallowance for imprudence (known as the "9B case"),[72] one in which there was a $50 million disallowance (the "10A case"), one in which there was a $150 million disallowance (the "10B case") as well as others that involved various percentage deductions. The assumptions will be discussed in more detail later.

Technical conferences were held between representatives for NOPSI and the Council relating to the data requests, in order to refine them; to reduce the effort required to produce them; and to deal with problems in the computer runs.

The general approach employed by the Council's consultants was to analyze the results shown in the "cases" to determine whether they portrayed plausible financial situations. If so, then it might be concluded that the imprudence deduction specified in the particular case was one that NOPSI could "sustain."

As described by Mr. Palast, a consultant to the City, the purpose of his testimony was to set "limits" so that an imprudence penalty would be no more than the utility could "sustain" financially—based on the underlying assumption that the utility would take reasonable measures to conserve its cash flow and work in good faith for the success of a financial plan. (CNO Exh. 49 at 5-6.) NOPSI was viewed as able to "sustain" an imprudence penalty if it could thereafter meet its obligations and maintain service—that is, if it could meet its operating and maintenance expenses and interest due on outstanding debt; fund necessary improvements; and, importantly, pay the monthly cost of Grand Gulf I power, as allocated by the FERC. (*Id.* at 6.)[73]

[72] The numbers refer to the paragraph number of the data request filed by the Council's consultants.

Mr. Palast concluded that NOPSI could sustain a deduction of $150 million under either tax regime. He further testified that under the old tax law, NOPSI could have sustained a deduction of $150 million, plus 10 percent per month of the Grand Gulf I costs. Because the new tax law had some adverse effects on NOPSI's after-tax financial results, Mr. Palast's testimony concluded that the 10 percent additional disallowance should be lowered to 4 percent. (CNO Exh. 65 at 27.)

Mr. Cecil, another consultant for the City, also testified that NOPSI could sustain a deduction of approximately $150 million for imprudence, whether the financial computations were made under the old tax law or under the 1986 revision. He concluded that the change in the tax law had only moderately affected the financial impact on NOPSI of the possible imprudence disallowances, notwithstanding the relatively drastic change in the tax rate structure. This, in turn, implied that possible future adjustments in tax rates would also be unlikely to have dramatic impact. (CNO Exh. 68 at 6-8).

Although NOPSI's witnesses vigorously contested these conclusions, they did not offer any alternative "limits." At best, Mr. McLetchie testified that a $50 million deduction would not "theoretically bankrupt" NOPSI. (NOPSI Exh. 85 at 12). Mr. Cecil, in contrast, concluded that a $50 million deduction would leave NOPSI in "a very strong

[73] It is important to understand that the cases do not necessarily portray what would actually be done by NOPSI to finance its obligations and operations—because there are limitless permutations and many options that could be pursued instead. Rather, a case established only that general level of disallowance could be borne by a plausible set of actions, to which there may be many alternatives.

financial condition." (CNO Exh. 68 at 9.) NOPSI's witnesses principally challenged the assumptions used in the computer runs and the feasibility of NOPSI's securing necessary funds through debt and equity investment in the circumstances that would prevail following an imprudence deduction. The evidence was extremely complicated, and witnesses on both sides challenged the methods, calculations and premises of their counterparts.

C. The Financial Projections: Directions and Assumptions

As part of their data requests, the Council's consultants asked NOPSI to provide "a complete financial forecast," in the form of computer runs (including, *inter alia*, an income statement, balance sheet, sources and uses of funds statement), and reflecting the "most recent information available" and the "Company's best judgment with respect to future events." (Data Request of August 4, 1986.) In addition, NOPSI was initially directed to make the following assumptions:

1. The interest rate on future NOPSI financing would not exceed 11 percent.

2. Revenues for the non-Grand Gulf portion of electric operations and for gas operations would not be affected by any imprudence deduction—so that the total revenue figures would be unchanged, except for the deduction itself.

3. Corporate tax laws would remain the same.

4. Grand Gulf II would not be included in the calculations (its future being unknown).

NOPSI's computer runs for the "no deduction" cases ("9a" and "9b" cases) on August 15, 1986 showed the need for additional instructions. Therefore, NOPSI was directed to make the following additional assumptions (which we number as a continuation of the above):

5. The return on average common equity for each calendar year beginning with 1988 would be approximately 14 percent, and the base rate increases necessary to maintain this return would become effective on January 1 of each year.

6. NOPSI's capital structure would maintain the ratios reflected in NOPSI's current capital structure—*i.e.*, long-term debt of approximately 55 percent.

7. Annual common dividends would be no greater than 10 percent of average common equity.

8. There should be no other material changes, but "if NOPSI were to discover some unanticipated error or were to conclude that a further change should be made," it should raise the matter for discussion.

Further discussions between the Council's consultants and NOPSI's consultants and employees followed NOPSI's provision of trial computer runs. Additional instructions and assumptions were provided to NOPSI, by letter dated September 2, 1986, as follows:

9. In addition to the specification that the annual common dividend be no greater than 10 percent of average common equity (as stated in the paragraph numbered 7 above), the annual common dividend should not exceed 70 percent of the "net income available to common" as reflected on NOPSI's Corporate Income Statement.

10. It should be assumed that the capitalization ratios shown on the Financial Statistics of a 55 percent limit on long-term debt and a common equity minimum of 34 percent would be maintained by purchase of NOPSI common stock by its parent, MSU.

Given these specific assumptions, together with the program and assumptions inherent in NOPSI's computer model, NOPSI was requested to provide complete financial forecasts for the period 1986-1995, under a number of "case" scenarios. Each was, furthermore, to be based on the settlement set forth in Resolution No. R-86-112. The cases that became the principal focus of testimony were:

- 9(b): which specified that there would be no adjustment for imprudence.

- 10(a): which specified that there would be, as an imprudence adjustment, a $50 million reduction in the accumulated, deferred Grand Gulf I expenses otherwise recoverable, occurring as of December 31, 1986.

- 10(b): similar to 10(a), but specifying a reduction of $150 million.

- 10(c): which, as revised by letter dated September 18, 1986, specified that, in addition to the $150 million adjustment assumed by 10(b), there be a reduction equal in amount to 10 percent of the non-fuel Grand Gulf I expenses billed to NOPSI.

Succeeding runs under these scenarios also bore a number to indicate their identity. For example, "10(b)(4)" would reflect the fourth (and final) run for 10(b). In describing the output of computer runs below, we shall refer, unless otherwise indicated, to those which reflect the Tax Reform Act of 1986.

It is useful to examine, in the first instance, the 9(b)2 run, since it indicates NOPSI's projected financial condition in the *absence* of any imprudence deduction (but including its obligations under the rate settlement agreement). Under this scenario, NOPSI would be expected to borrow an aggregate of $205 million represented by bonds and debentures during the 5 year period 1986

to 1990,[74] and to repay $108 million of debt during the 5 year period 1991 through 1995. NOPSI would be expected to sell $85 million in common stock to MSU during 1986-1990, and repurchase $98 million of common stock during 1991-1995.[75]

It is important to note that NOPSI would need to borrow debt and seek an equity infusion during the early period even *without* an imprudence penalty. Such need arises from the deferral and phase-in plan contained in the March 1986 settlement. NOPSI would begin to repay this debt and equity financing during the "phase out" period, when its revenues would exceed its Grand Gulf I costs. NOPSI's return on average common equity during the period would be 14 percent, a result dictated by assumption numbered 5, above. The mortgage indenture coverage (the ratio of net income to the interest required to be paid under the mortgage indenture) would generally be in the range of 2.36 to 3.17 throughout the period, except for the first year, which is considerably higher.

In comparison, assuming that NOPSI were to incur a $150 million reduction in deferred Grand Gulf I costs as a result of imprudence (the "10(b)(4) case"), the computerized financial forecasts generally showed the following. NOPSI would have to issue $125 million in debt instruments during the 4 year period 1986-1989, and could begin to repay them in 1990—so that $88 million would be repaid during the 3 year period 1990-1992. NOPSI would issue $105 million of common stock to MSU during the period 1986 to 1989, and commencing in 1990, NOPSI would repurchase its common stock from MSU, so that $105

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[74] The runs were done on the basis of a comparison that began with the year 1986. In fact, however, no imprudence adjustment was made in 1986. The testimony indicated that the periods in question could be moved so as to commence in 1987, without significant impact on the calculation. (Tr. 3387.)

[75] (CNO Exh. 68, EAC-8, Sources and Uses of Funds, p. 3.)

million would be repurchased by 1992. MSU's return on its investment would be lower than in the no deduction case. Its return on common equity would be lowered to approximately 8.8 percent during the period (except for the year of the deduction, which would show a substantial negative return). (CNO Exh. 65 at 16-17.) Similarly, the mortgage indenture coverage would be lowered to a range of about 2.2 percent to 2.6 percent (except for a negative coverage in the year of the disallowance, and a small coverage in the following year). (CNO Exh. 65 at 17.) Again, these results reflect NOPSI's meeting its service obligations, paying its debts, and meeting its obligations to pay for Grand Gulf I.

The fundamental question is whether the results shown by the 10(b)(4) run are plausible and in harmony with real-world financial circumstances. To answer this inquiry, Mr. Cecil stated the key assessment factors as (1) the maintenance of a reasonable percentage of common equity in the capital structure—a factor realized here by the input of assumption 10 above, (2) maintenance of reasonable interest coverage ratios, (3) the existence of a plan which gives assurance to NOPSI and the investors that deferred amounts will be recovered, and (4) sufficient base rate levels for the recovery of non-Grand Gulf costs. (CNO Exh. 46 at 23). He concluded that NOPSI could sustain its operations and meet its obligations given a $150 million deduction, under both the new and old tax laws. (CNO Exh. 68 at 6-8).

Mr. Palast reached similar conclusions as to the 10(b)(4) case. He noted that, except for the year in which NOPSI's books reflect the one-time charge for imprudence, NOPSI would experience positive earnings averaging 8.8 percent in the decade forecasted. He further noted that NOPSI would meet all its interest payments, while otherwise maintaining its operations, "with a comfortable margin of income." Specifically, by the second year after a write-off, the mortgage indenture coverage ratios would exceed 2.0

percent. He also noted that Middle South would not be called upon to invest appreciably more in NOPSI than if there were no write-off at all, and NOPSI would begin returning capital to MSU in 1990. (CNO Exh. 65 at 18-20.)

NOPSI's witnesses reached conclusions substantially different from those of Mr. Cecil and Mr. Palast and contended that NOPSI could not sustain a $150 million imprudence disallowance. In order to highlight these differences and lay the basis for our own conclusions on the issue of relief, we have listed the principal bases of disagreement below. Each of these matters will be treated as separate topics in the discussion that follows. They are:

1. NOPSI's contention that the Settlement Agreement contained an assurance that there would be no disallowance of Grand Gulf I costs in the prudence inquiry; that investors understood the settlement in this manner; and that were this understanding breached, investors would not rely upon any Council "assurance" in the future and therefore would not provide any financing to NOPSI.

2. NOPSI's contention that it is unreasonable to assume that rate relief will be granted on and after January 1 in each year in an amount sufficient to provide a 14 percent return on average common equity—thus challenging assumption number 5.

3. NOPSI's contention that it is unreasonable to assume that debt market funds would be available to NOPSI at 11 percent—or, indeed, on any reasonable terms—thus challenging assumption number 1.

4. NOPSI's contention that it is unreasonable to assume that MSU would make the required equity investment in NOPSI—thus challenging assumption number 10.

5. NOPSI's contention that the effect of the Tax Reform Act of 1986 is so adverse to NOPSI as to make it unable

to sustain an imprudence reduction even if it could have done so under the prior tax law.

6. NOPSI's contention that there are no additional cost savings or cash generation measures available in order to aid its financing in the event of an imprudence deduction.

In the course of examining these principal contentions, a number of related matters will also be treated.

1. NOPSI's contention that the Settlement Agreement precludes prudence relief; issues of investor reliance and retroactive ratemaking.

The rate settlement agreement between NOPSI and the Council of March 20, 1986 (Res. No. R-86-112) provides, *inter alia*, that NOPSI would permanently absorb $51.2 million of the Grand Gulf I non-fuel related costs then incurred—the aggregate of which were then approximately $105 million. It further provides that the remainder of the costs theretofore incurred, as well as future costs, would be deferred and recovered pursuant to a schedule of increases contained in the agreement. For accounting purposes, NOPSI's books reflect revenues (the "deferred revenues") in amounts equal to, and based upon the company's anticipated recovery of, Grand Gulf I costs (and related carrying charges) that are not recovered through rates on a current basis.

NOPSI contends that the settlement bars any imprudence disallowance by the Council that would deny recovery of costs incurred by NOPSI and entered on its books as deferred revenues. This argument appears to have three variations. The first and principal argument is that the Council's approval of the settlement *ipso facto* gave "assurance" to investors that all deferred costs would be recovered. In particular, it is urged that investors who purchased $25 million of NOPSI's first mortgage bonds in July 1986 relied on such "assurances." The second variation is based on a technical and literal reading of the

settlement agreement and contends that the Council is barred by the "plain meaning" of the agreement from issuing an order that would disallow any deferred costs. The third variation is that any such disallowance by the Council would be improper "retroactive ratemaking." The evidence is contrary to NOPSI's position on all of these points.

Our Resolution R-86-112 embodies the rate settlement. The last introductory clause of the Resolution states,

> WHEREAS, the Council deems a settlement to be feasible *only* if such settlement does not affect all existing legal rights of the City, including but not limited to rights concerning municipalization, *the investigation of NOPSI's prudence regarding Grand Gulf . . .*"(Emphasis added.)

In accordance with this premise, paragraph 26 of the Resolution states,

> 26. THE COUNCIL IS NOT REQUIRED TO CEASE ITS INQUIRY INTO THE PRUDENCE OF NOPSI'S INVOLVEMENT IN GRAND GULF OR TO REFRAIN FROM ISSUING ORDERS WITH RESPECT THERETO, UNLESS SO ORDERED BY A COURT OF COMPETENT JURISDICTION.

Paragraph 26 is set in capitalized type and is specifically designated within the agreement as a term "agreed to and accepted by both NOPSI and the Council."

NOPSI's argument that the settlement bars an imprudence adjustment that would reduce deferred revenues rests upon the testimony of expert witnesses that is itself not consistent. Mr. Robert Hahne, a partner of Deloitte Haskins & Sells ("DH&S"), which was an independent outside auditor for NOPSI in 1985 and 1986, testified that the only proper basis for deferring and recording costs under generally accepted accounting principles is the "assurance" that such costs will be recovered; that the settlement

agreement provided such "assurance" with respect to the $54 million booked and deferred by NOPSI in conjunction with the settlement; and that DH&S gave its approval to the settlement on the foregoing basis. (NOPSI Exh. 66 at 4.) Mr. McLetchie, in his deposition, took this idea further and argued that the settlement gave "assurances" that all costs subsequently deferred under the phase-in plan would be "fully recovered according to the agreed upon schedule." (NOPSI Exh. 72 at 88.) Mr. Robert W. Jones, an investment banker whose firm has assisted NOPSI and SERI, stated that while investors recognized that the settlement agreement allows for the prudence investigation, they do not expect the Council to "reverse the deferred revenue already booked by NOPSI." (NOPSI Exh. 67 at 5.) Thus, Mr. Hahne appeared to address only the $54 million booked at the time of the settlement, leaving other future deferred revenues not necessarily subject to the alleged "assurances," while Mr. McLetchie referred to subsequent deferred revenues as well. Mr. Jones' position was not clear.

The testimony of NOPSI's witnesses is refuted by the facts. Prior to the settlement, Mr. Hahne's accounting firm (DH&S) had, in connection with its 1985 audit of NOPSI, issued an auditor's letter with substantial "qualifications" as to NOPSI's ability to continue as a "going concern." At that time NOPSI had incurred a huge Grand Gulf I obligation but had not yet been granted rate relief; and this, in turn, raised questions as to the availability of outside financing. After the settlement, DH&S removed its qualifications—but *not* on the basis suggested by Mr. Hahne that the Council had given the supposed "assurances" or had, by reason of the settlement, barred further disallowances. In an internal DH&S memorandum (CNO Exh. 55), DH&S personnel indicated concern that the settlement agreement left open the prudence inquiry, which "does raise doubt on the recovery of Grand Gulf I costs which *were deferred* in March 1986 in accordance with the set-

tlement and with the *continued deferral*." (Emphasis added.) DH&S did *not* then believe that the settlement gave any "assurance" of recovery. DH&S's partner in charge, Mr. Quivey, dealt with NOPSI's Mr. McLetchie on this matter. Mr. McLetchie did not tell Mr. Quivey that the settlement was an assurance that NOPSI would obtain the deferred revenues. (Tr. 2915.) Mr. Quivey insisted upon receiving the opinion of NOPSI's legal counsel to address the issue. That opinion, obtained in discovery here, did not even suggest that the settlement barred an imprudence disallowance. Rather it implicitly assumed the *opposite* and opined instead that (1) NOPSI would prevail on the substantive issue of whether it was imprudent; (2) certain areas were preempted by federal law; and (3) any imprudence "damages" would not exceed the $51 million already reflected as a deduction in the settlement agreement. (CNO Exh. 56.)

DH&S's internal memorandum squarely places the reason for withdrawal of the qualification in its auditor's letter on the opinion of NOPSI's legal counsel and on its understanding of legal requirements concerning wholesale cost pass-through. (CNO Exh. 56 at 2.) Thus, in connection with a matter of major importance to NOPSI, and at a time when the proposition that the settlement agreement provided the requisite "assurances" would have been of great importance if true, mention of it is conspicuous by its absence. There is no evidence that NOPSI or its counsel asserted that the agreement either literally or by implied "assurance" barred disallowance of deferred costs based on a finding of imprudence, or that DH&S believed this to be true. The evidence is precisely to the contrary.

Similarly, NOPSI's witness, Mr. Jones, testified on cross-examination that in the public offering with which he assisted, (SERI's sale of $750 million of first mortgage bonds in September 1986), NOPSI's rate settlement agreement was considered a "material" event for federal Securities Act disclosure purposes. He affirmed that it was the sub-

ject of the "due diligence" meetings held for the offering. The resulting prospectus language, he said, did in fact inform investors that the prudence inquiry might result in a disallowance and rate reduction. (NOPSI Exh. 68 at 11-12.) Moreover, Mr. Jones subsequently took a contradictory position that we find untenable, to the effect that investors believe that NOPSI was entitled to recover imprudently incurred costs. (Tr. 2744.)

NOPSI's assertion that the "plain meaning" of the settlement prohibits a rate disallowance is meritless. NOPSI apparently contends that because certain conditions or numbered paragraphs were specifically referred to or cross-referenced within certain other portions of the settlement agreement, the fundamental condition dealing with the Council's right to conduct its prudence investigation and to issue remedial orders, which is not specifically cross-referenced, should be disregarded. Post Hearing Brief of New Orleans Public Service Inc., April 10, 1987 at 15 (hereinafter "NOPSI Remedy Brief"). It argues that because the phase-in plan schedule contained no cross-reference to paragraph 26 (referring to the prudence inquiry quoted above), such paragraph 26 cannot provide authority for the Council to authorize a different rate recovery schedule. (*Id.* at 14-5.)

NOPSI goes on to argue, referring to the testimony of Mr. Cunningham (NOPSI Exh. 70 at 38-39), that the only action that paragraph 26 entitled the Council to take, if it found imprudence, was to order a lower return on common equity.[76] Mr. Cunningham's testimony in this regard

[76] NOPSI also suggests that the Council could, under this language of paragraph 26, determine offsetting costs in base rates or "promulgate filing or other regulatory requirements." (NOPSI Remedy Brief at 16.) The former (the determination of offsetting costs), of course, has nothing to do with imprudence. The latter is simply without any substantive content with respect to the instant matter and could affect only future activities.

was, however, elicited on cross-examination, in which he offered his "understanding" of the settlement agreement that the Council was virtually without any authority to issue a remedial order if it found imprudence. Ultimately, Mr. Cunningham testified that he was not told by anyone that there could be no disallowance by the Council of deferred costs set up under the settlement agreement. (NOPSI Exh. 70 at 42, 47). He finally conceded, "I am not going to say that somebody told me what the Council could do if they found imprudence." (*Id.* at 47.)

Mr. Cunningham was also allowed, over objection, to testify that if the Council were to issue an order that had the effect of preventing NOPSI from recovering the costs that it had booked as deferred revenues under the settlement, such a disallowance would constitute "retroactive ratemaking" and would thus be prohibited. (Tr. 2771 *et seq.*) This matter was a question of state regulatory law and did not require Mr. Cunningham's testimony; nor was he competent to testify on the matter. Moreover, NOPSI's brief here cites no legal authority that would support Mr. Cunningham's contention and we independently have found none. It is obvious that the imposition of such a disallowance would not constitute retroactive ratemaking because it was based on a right expressly reserved within the settlement order itself and involves rates that were expressly made subject to a possible remedy for imprudence.

On cross-examination, Mr. Cunningham was also confronted with NOPSI's Form U-1, filed under the Public Utility Holding Company Act of 1935, dated September 23, 1986 (CNO Exh. 61), which was inconsistent with his testimony. The disclosure set forth on page 10 of NOPSI's financial statements stated, in part, with respect to the prudence inquiry that,

> If the Council determines that any such actions or decisions were imprudent . . . it may attempt to prohibit the company from recovering from its

> ratepayers those costs associated with Grand Gulf I . . . incurred as a result of imprudent actions or decisions in excess of the unrecovered $51.2 million resulting from the settlement between the Council and the Company. However, the Company believes that all of its actions and decisions with respect to Grand Gulf I were prudent and that the company would ultimately be successful in defending against any attempt to quantify a finding of imprudence in excess of $51.2 million.

It goes on to state,

> The Company cannot predict the effect, if any, of the revised decision of the Court of Appeals in the course or outcome of the Council's prudence investigation and related litigation. (*Id.*)

Again, there was no suggestion in NOPSI's disclosure that the Council was barred by either the settlement order or rules against "retroactive ratemaking" from disallowing, on the ground of imprudence, costs "in excess of the unrecovered $51.2 million." Moreover, the language further undercuts the claim that the settlement provided an "assurance" of recovery.

NOPSI's contentions place the Council in the unusual position of being told that it agreed to something other than that which we agreed to, and then being asked to adjudicate the matter. The rate settlement was made subject to the Council's continuing authority to conduct the prudence investigation and issue orders with respect to it. NOPSI and the investment bankers clearly understood that a common form of relief, if imprudence were found, would be an order disallowing imprudently incurred costs. (NOPSI Exh. 68 at 10-11.) The effect of the settlement is that NOPSI is entitled to rate relief under the schedule set forth therein, provided that no subsequent findings of imprudence were made and related penalty imposed. Such was the understanding when the agreement was entered

into. Moreover, we believe that NOPSI had an advantage in some respects with respect to predicting the outcome under paragraph 26, because at the time the settlement was reached, it had greater knowledge of facts bearing on its prudence. NOPSI accepted the risk that the evidence in the prudence inquiry might result in a finding of imprudence and an appropriate remedy. There is no bar to the Council's ordering relief that disallows the recovery of costs imprudently incurred.

2. NOPSI's contention that the financial forecasts are based on the unreasonable assumption that the Council would grant regular annual rate relief sufficient to maintain a 14% return on average common equity.

As previously indicated, NOPSI was directed by letter dated August 21, 1986, to include an assumption[77] in the financial forecasts regarding NOPSI's return on average common equity. This was based on the assumption that the Council would give periodic relief to cover increases in costs other than those associated with Grand Gulf I—which Mr. Cecil testified was no more than the assumption that the Council would act reasonably. (Tr. 1989.) Mr. McLetchie characterized this as a "highly questionable assumption," since, he said, it would require the Council to

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[77] The relevant text of the letter relating to the assumption is as follows:

> NOPSI should assume a 14 percent annual return on average common equity for each calendar year beginning with the year 1988. This assumption will require the computer model to factor in annual base rate increases necessary to maintain the 14 percent annual return on average common equity. The forecasted base rate increases should be presumed to become effective on January 1 of each year, beginning with January 1, 1988. We understand that, to simplify the modeling procedure, the forecasted base rate increases will be shown entirely on the electric side. We also understand that the computer model may not produce precisely a 14 percent return on equity in each year, and that the return may vary a few tenths of a percent in one direction or the other.

grant "prior to January 1 of each year, rates sufficient to cover the expenses of Public Service for the coming year and to allow Public Service to earn a 14% return on equity calculated as though there had been no prudence hit. It certainly has not been established that the Council would be willing to grant those increases." (NOPSI Exh. 71 at 4.)

The background of this assumption is important. On August 15, 1986, NOPSI provided financial projections to the Council's consultants that portrayed NOPSI as going bankrupt (or at least suffering continuous losses), even *absent* any imprudence deduction (*i.e.*, the original 9(b) case). This portrayal resulted from NOPSI's decision not to reflect any rate increases to cover increased costs arising from matters other than Grand Gulf. (CNO Exh. 49 at 40-41). That is, NOPSI *included* such increased non-Grand Gulf *costs* in the projections (about $250 million) but did *not* include any *revenues* from rate increases to offset such costs.

It appears that NOPSI's decision to omit non-Grand Gulf rate increases was intentional. Mr. Louiselle testified that in presenting the Council with forecasts that showed no rate relief responsive to increases in non-Grand Gulf expenses, NOPSI made a conscious decision to omit such rate relief, even if it portrayed NOPSI as going bankrupt. (NOPSI Exh. 79 at 92-96). He justified this on the basis that Mr. Palast had given testimony in the rate proceeding here (during the non-prudence phase) that any rate increase over 6 percent annually would have "catastrophic" results. (NOPSI Exh. 78 at 10). Mr. Palast did not so testify, but rather stated that annual rate increases over 6 percent would have a "measurable" impact on the community—*i.e.*, the adverse effects could begin to be measured—not that any increase over 6 percent would be a catastrophe.

NOPSI's position was inconsistent with that taken in NOPSI's own projections submitted in April 1986, (NOPSI Exh. 78 at 95-6), as well as with its normal forecasting practices—both of which assumed that there would be rate increases in the ordinary course to cover increased non-Grand Gulf costs, plus a return on investment. (NOPSI Exh. 72 at 45-47). The contrary assumption, implicit in the computer forecast presented by NOPSI on August 15, 1987, was not realistic or justifiable. (See cross-examination of Mr. Louiselle. Tr. 3027-29).

To rectify these implausible financial results, the Council's consultants instructed NOPSI to include a rate relief assumption which contained two necessary specifications: the level of return on investment that would be allowed by the Council and when it would be effective. NOPSI now asserts that this assumption is unreasonable because "It has not been established that the Council would grant such increases", (NOPSI Exh. 71 at 4) and that it is unrealistic to assume that the increases will occur as of the beginning of each year.

Mr. McLetchie conceded that the Council's methodology was essentially correct—that is, in the normal course of events NOPSI would periodically determine whether its rates were sufficient to recover costs plus a reasonable rate of return on equity, and would seek rate relief if it appeared such costs would not be recovered. (NOPSI Exh. 72 at 55-57, 60.) He contended that the assumption that rate relief would be granted by the Council each January was artificial, considering that in real world circumstances, relief would likely be sought at irregular time periods. But he conceded that NOPSI's requests for relief would in fact be timed and quantified so as to account for expectable regulatory delay. (*Id.* at 45-47 *et seq.*)

It is important to note that NOPSI did not offer any more "realistic" assumption to address this problem, even

when pressed to do so by attorneys for the Council. (*Id.* at 62-63.)

For the purpose of developing financial projections to assess the level of imprudence adjustment that NOPSI could sustain, the assumption was a reasonable one. It is not necessary to believe that the Council will grant relief each January 1. Rather, the essence of the assumption is that NOPSI will be given timely rate relief that will cover legitimate increased expenses together with a reasonable return on rate base. Moreover, the utility of the assumption is a matter in which the Council plays a direct role. We have control of how much rate relief we will grant and how quickly we will do so. Basically, the Council can make the essential character of the assumption work, which NOPSI concedes. (Tr. 2933-34). The Council recognizes the need to deal fairly with future NOPSI requests for non-Grand Gulf I rate relief in a timely manner, and this consideration may be deemed embodied in our order issued herewith.

3. NOPSI's contention that the forecasts are based on the unreasonable assumption that NOPSI could obtain debt financing at the rate of 11%; and its further contention that it could not obtain debt financing on any reasonable terms.

As previously indicated, the computer-generated forecasts for the $150 million deduction case (*i.e.*, case 10(b)(4)) show NOPSI borrowing $125 million during the period 1986-1989, and beginning to repay its lenders in 1990. NOPSI objects to this portrayal as unrealistic on a number of grounds, summarized as follows: (1) The forecast is unrealistic because it was based on its assumption that NOPSI's cost of borrowing would be 11%, which is unreasonably low; (2) NOPSI will, in fact, be unable to borrow on any reasonable terms, because of low income-to-interest coverage ratios and other financial circumstances that will arise following the imprudence "hit"; (3) the willingness of lenders to provide debt financing would be dependent upon the commitment of MSU to provide equity financing contemporaneously, and MSU will not provide such financing.

The dispute over the appropriate interest rate applicable to NOPSI's borrowing is less consequential than may first appear. NOPSI argues that if there were a large imprudence disallowance, the rating of its bonds would be reduced below "investment" grade to a "speculative" level,[78] and that this would narrow the number of potential investors considerably and would raise the interest rates NOPSI would have to pay. Although NOPSI issued $25 million in bonds in July 1986 at 11 percent, NOPSI notes that such bonds were ultimately to be secured by a property mortgage, while here there would be no property available to secure the debt financing required. Given these and other circumstances, its experts concluded that NOPSI would have to pay 12.5 percent to 15 percent in order to borrow the necessary funds. (NOPSI Exh. 71 at 6-7; NOPSI Exh. 67 at 9-10.)

The City's consultants noted that the 11 percent interest rate was specified by them only after NOPSI had provided runs that incorporated excessive 15.25 percent and 17.0 percent interest rates. They further noted that top-rated utilities were paying an average of about 9 percent on their borrowings, and that 11 percent represented a substantial premium; that SERI, which had "many of the risk characteristics of NOPSI," had sold a large issue of medium term bonds in September 1986 at 11 percent (NOPSI Exh. 49 at 45-47); that SERI subsequently sold $750 million of debt at between 9.96 percent for 5 year bonds to

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[78] Bond rating agencies have various classifications of the investment quality of a particular issue, utilizing a combination of letters. The fact that an issue is rated as "speculative" does not mean that it cannot be sold, but it would affect terms such as the interest rate and probably reduce the number of potential buyers.

11.65 percent for 30 year bonds; and that other "troubled utilities" had been able to raise debt at interest rates considerably below those proposed by NOPSI. (CNO Exh. 50 at 22; CNO Exh. 47 at 139-42).

It may be assumed *arguendo* that the interest rate NOPSI would have to pay lies somewhere in between these conflicting positions.[79] The more important point is that a change in interest rate of the magnitude involved here would not fundamentally affect NOPSI's ability to withstand an imprudence disallowance. A higher rate would become a legitimate cost of NOPSI "normally included in rates and paid by the ratepayers." (CNO Exh. 47 at 172-4.) NOPSI's witness Mr. McLetchie agreed that the Council has the power to grant rate increases that would allow NOPSI to recover its interest costs, whatever they may be. (Tr. 2936-38). Moreover, although a change in the level of interest rates might also play a role in calculating the income-to-interest coverage ratios, this would not be significant. (CNO Exh. 47 at 173.)

There was also considerable debate among the expert witnesses as to whether the coverage and capitalization ratios depicted in the financial projections were "healthy," "adequate" or "reasonable." (See NOPSI Exh. 67 at 7.) There was similar debate as to how NOPSI's situation would compare to those of other "troubled utilities," a number of which have obtained financing and maintained operations notwithstanding major disallowances for imprudence. (NOPSI Exh. 68 at 41-43.) It is probably not possible or necessary to reach conclusions, in the first instance, as to whether such situations are sufficiently comparable in important respects to provide definitive guidance. It is important, however, to note that even NOP-

[79] In May 1987 NOPSI issued $75 million of 10 year Rate Recovery General and Refunding Mortgage Bonds at 10.95 percent interest. In January 1988 NOPSI issued $40 million of similar bonds at rates ranging from 13.2% to 13.9% depending upon maturity.

SI's witness did not contend that the necessary financing would be unavailable, but only that it would be "very difficult" for NOPSI to be "assured" of its ability to raise funds, if its debt securities were downgraded to "speculative" ratings. (NOPSI Exh. 67 at 9; NOPSI Exh. 79 at 74-79.) However, the level of the interest rate offered plays a key role in making such an investment attractive. (Tr. 2938-39.) Moreover, the assurance most critical to lenders is that they will in fact be repaid, and this appears to be a certainty under the projections. Both of these matters, it must be noted, can be addressed by actions of the Council.

Moreover, the projections in the 10(b)(4) case, which must be regarded as conservative,[80] show that NOPSI's mortgage indenture coverage ratio exceeds 2.0x throughout the forecast period, except for the year of the write-off and the next succeeding year (CNO Exh. 65 at 17, GP-8)—a respectable margin for debt coverage.[81] Assuming other specifications in the 10(b)(4) scenario were met, particularly that of equity financing, there seems to be little question that NOPSI would be able to repay its borrowings in a relatively short time, so that long-term financing would not be required, even in the case of a $150 million write-

[80] As indicated in point 5 *infra*, NOPSI's 10(b)(4) case, reflecting projections under the new tax legislation, tends to understate NOPSI's net income.

[81] Assuming a write off of $150 million in a single year, the mortgage interest coverage in the year of the write-off is negative, reflecting the loss that would occur. The next year is 1.57 and all succeeding years exceed 2.0 (CNO Exh. 65 at GP-8). Under the terms of NOPSI's first mortgage bond indenture, NOPSI can issue additional first mortgage bonds only if pre-tax earnings are at least 2.0x the interest due on first mortgage bonds outstanding and to be issued—which, of course, specifies a margin of earnings over its interest requirements. It would not be expected that financing would be based on first mortgage bonds, so their coverage ratio would not act as an operative restriction. Other kinds of debt may be issued (See CNO Exh. 49 at 22-23; CNO Exh. 46 at 14).

off, and this should allow a more favorable interest rate. Mr. Palast noted, "By 1990, the Company may stop borrowing altogether and begin a long period of cash surplus during which time it will pay down debt and refund capital to MSU." (CNO Exh. 65 at 15.) Mr. Cecil emphasized that the key factor here was to assure the debt investors that they will in fact get their money back with interest through recovery of deferred costs. (Tr. 3356; CNO Exh. 46 at 13; Tr. 1991).

Because prospective lenders would be assured of being paid back on a timely basis, at an interest rate reflecting market risk, a determinative element here appears to be MSU's willingness to provide the equity that would be deemed necessary to complement the debt financing[82] and give confidence to the debt investors. This matter is treated in the next section.

4. NOPSI's contention that it is unreasonable to assume that MSU will make the equity investment in NOPSI required to fulfill the financial projection.

Under the $150 million deduction case, NOPSI would need to sell $105 million of its common stock to MSU over a 4 year period, as follows: 1st year - $25,000,000; 2nd year - $40,000,000; 3rd year - $20,000,000; 4th year $20,000,000. (CNO Exh. 68, Case 10(b)(4), Sources and Uses of Funds, p. 3.) Beginning in the fifth year, NOPSI could begin repurchasing the stock, and complete the repurchase within three years. (*Id.*)

NOPSI contends that MSU would be unwilling to make such an investment in the circumstances presented. The return on MSU's newly invested equity would be in the

[82] An equity-to-debt ratio of 30% is required by the Securities and Exchange Commission.

range of 9.5% annually,[83] which NOPSI considers too low and embodying a "double penalty."[84] Moreover, NOPSI's witnesses raised the prospect that during the time when MSU would be required to make the investment, the preferred shareholders would have the right to take over NOPSI's board of directors, and that this in turn would make it highly improbable that MSU would be willing to invest any substantial sums.

This, it is said, would come about as follows: Because of the imprudence deduction, NOPSI would have a negative retained earnings balance through the end of 1991. (Tr. 2181, regarding Case 10(b); CNO Exh. 68, regarding Case 10(b)-4.) As a result of a limitation in NOPSI's charter and elsewhere, NOPSI could not pay preferred dividends in these circumstances.[85] Moreover, if NOPSI does not pay such dividends for four quarters, NOPSI's preferred shareholders, rather than MSU, can elect its board of directors. Thus, MSU would, NOPSI argues, be called upon to make significant investments in NOPSI under the "catastrophic condition" of the threat of a loss of control of the board,

[83] In fact, Mr. McLetchie contended that MSU should properly look at the rate on its total historical invested equity, or about 2.6 percent annually, not the 9.5 percent that it would earn on the aggregate equity remaining after the deduction together with newly invested equity. (NOPSI Exh. 72 at 114-117.) However, it seems to us that any investor, including MSU, would make its decision based on present and future returns, not on historical investments and not on losses incurred as a result of imprudence, which expectably is a non-recurring extraordinary event.

[84] Contrary to NOPSI's contention that the lowered rate of return constitutes a "double penalty", it is merely a mathematical result of the write-off itself. (CNO Exh. 51 at 151-2.)

[85] In their original analysis of NOPSI's computerized forecasts, the Council's consultants assumed that NOPSI could pay preferred dividends during this period. However, the misunderstanding arose because NOPSI's printouts erroneously showed such dividends being paid. (Tr. 2326.)

and MSU would not reasonably do so. (NOPSI Exh. 67 at 14; NOPSI Exh. 68 at 58-59.)

The prospect of the preferred shareholders' taking over the board is, however, not realistic. Even assuming that the preferred shareholders had the legal right to elect the board, they could not practicably do so for the very reason that they would need MSU's investment in NOPSI, and MSU would not make that investment if the preferred shareholders took actions to disturb MSU's control. (NOPSI Exh. 68 at 62.) The theoretical right of the preferred shareholders to take over the board would be neutralized by their need for MSU's investment. (*Id.* at 80-81.)

NOPSI's witness, Mr. Jones, who principally sponsored this argument, was pressed to explain what the preferred shareholders could do that would be adverse to MSU. Apart from stating conclusorily that they might take actions "beneficial" to themselves and "detrimental" to MSU's equity, Mr. Jones was unable to suggest any specific act that would help them but hurt others. (NOPSI Exh. 68 at 62-68.) At one point he suggested that the preferred shareholders might force the company into liquidation to reclaim their equity and accrued dividends. However, it is unlikely that, during the five year period of NOPSI's negative retained earnings, the preferred shareholders would be able to realize their investment in a liquidation. (*Id.* at 72-76.) Instead, they would have the compelling incentive to continue the company as a going concern and attempt to secure MSU's continuing investments.[86]

We believe it evident that it would be in MSU's interest to make, and that it would in fact make, the investment required to ensure NOPSI's success following an imprud-

[86] Apart from the facial implausibility of the threat that the preferred shareholders would take over the board, there was other expert testimony that the risk to MSU was insubstantial (Tr. 2130), and that in similar circumstances where a utility had passed preferred dividends, the preferred shareholders took no action. (CNO Exh. 51 at 130-2, 141.)

ence deduction. MSU would have to make substantially the same equity investment whether or not there were any imprudence deduction, and it will get its money back beginning in 1990. (Tr. 2127; Cecil Dep. CNO Exh. 47 at 92; CNO Exh. 65 at 20, 28, Exh. GP-13.) Assuming that MSU will be repaid as the projections indicate, the only disadvantage MSU might incur is earning 9.5 percent on its investment instead of 14 percent. However, MSU's management would have to consider, against this, the consequences if MSU did not make the investment. In that circumstance, MSU would be likely to lose the entirety of its historical investment in NOPSI, which even after a $150 million deduction, would be approximately $25 million, and MSU probably would lose the right to future control of NOPSI. (NOPSI Exh. 72 at 121-128.)

Ultimately, of course, the Council has the power to take steps necessary to assure that MSU will be in a position to begin recovery of its equity investment within a few years after making it and to recover substantially all of it. One of the Council's own expert witnesses, Mr. Cecil, testified that MSU should be given such an assurance. (CNO Exh. 47 at 83.) Mr. McLetchie, in turn, testified that—(1) if the Council did undertake to provide NOPSI periodically with adequate rate compensation for its increased non-Grand Gulf expenses to assure debt investors that their principal will be repaid along with compensatory interest, and to give MSU the aforementioned 9.5 percent return on its investment; and (2) if the debt investors indicated that, having been given the aforesaid assurance of recovery, they would invest if MSU also did so—then he could not say that MSU would not invest, and that such circumstances constituted a "great improvement." (Tr. 2933-2964.) In short, the Council can largely control or influence the actions that would make the plan work.

Finally, while NOPSI seemed to suggest that MSU did not have, or could not get, the funds necessary to make the investment (CNO Exh. 47 at 117; Tr. 2025), it appears

that, as of the time of the hearing, MSU had $150 million in available, temporarily invested funds (NOPSI Exh. 86 at 76-77) and probably could raise more. In any one year, MSU's investment would not exceed $40 million. (CNO Exh. 68, Case 10B4, Sources and Use of Funds, p. 3.)

We conclude that the financial projections shown for the $150 million deduction case are, on the evidence, feasible and plausible.

5. NOPSI's contention that the Tax Reform Act of 1986 is so adverse that NOPSI could not sustain a significant imprudence deduction even if it could have done so under the prior tax law.

For the most part, analysis of this contention is subsumed in the prior discussion because we used as our starting points the 9(b)(2) and 10(b)(4) cases, both calculated consistently with the Tax Reform Act of 1986. Thus, the conclusions we have reached do in fact take into account the effects of the new tax law.

Moreover, NOPSI's computer forecasts for the 10(b)(4) case, upon which we have relied, appear to contain two errors that portray financial circumstances more difficult than should be the case. First, the imprudence deduction itself would have a tax effect. The aggregate revenue reduction resulting from the imprudence penalty would result in a lower tax payment and thus more net post-tax income. However, in calculating the results of the new tax laws in the 10(b)(4) case, NOPSI showed the detrimental aspects, but it failed to include the tax reduction effect of the write-off; in fact, it merely used the same taxes shown in the no-deduction 9(b)(2) case for the 10(b)(4) case. (CNO Exh. 68 at 4.)

This was a "substantial error." (*Id.*) The overall understatement of NOPSI's revenues in the 10(b)(4) case was $170 million. (Tr. 3152.) Although most of this additional revenue would be realized by NOPSI in later years, especially 1993 to 1995 (CNO Exh. 68 at 4), nevertheless it would certainly be of importance to debt and equity investors as additional funds available to repay them for the investment made during the earlier "phase-in" years, when NOPSI's revenues would be less than its expenses. (Tr. 3241 *et seq.*)

Another error in the 10(b)(4) run, less substantial in amount, affects the calculation in the earlier years of the effect of the alternative minimum tax ("AMT"). Under the AMT, half of the difference obtained by subtracting income for tax purposes from book income is treated as a "preference" item on which a ten percent tax must be paid. (This results in an AMT credit carry-forward, usable against taxes in later years.) In the early years, 1987 to 1992,[87] NOPSI would experience a "negative difference" between its book and tax income; this could be used to reduce the consolidated taxes of the several Middle South system companies, which file a consolidated return. There is an Intercompany Tax Agreement ("ITA") among these companies that prescribes, *inter alia*, that a company contributing to a tax reduction generally realizes the benefit of the contribution. While the current version of the ITA does not specifically contemplate the operation of the amended AMT, Mr. McLetchie testified that it would be his position that NOPSI should realize the benefit of the AMT reduction it will have generated as a result of the imprudence disallowance. (NOPSI Exh. 68 at 59-68.) Such a result would make several million additional dollars available to NOPSI in the earlier years. (CNO Exh. 50 at 9-10.)

Finally, it appears that the changes in the tax law work complementally with NOPSI's cash demands. In the three year period 1987 to 1989, NOPSI would actually fare about

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[87] These time periods were based on assumptions in the testimony of a prudence adjustment occurring in 1987. However, the same basic conclusions pertain if the time periods commence in a later year.

$12 million better under the new tax law than previously, and this is a period in which NOPSI would have substantial cash needs because of the "phase-in." In the next three-year period, 1990 to 1992, NOPSI would fare $27 million worse under the new law, but it is a period in which NOPSI would, in the aggregate, receive a tax refund and, beginning in 1990, be in a position to begin retiring the investments made to finance the imprudence deduction. In the next three year period, 1993 to 1995, NOPSI would actually fare $98 million better under the new tax law. (Tr. 3160 to 3192.)

In summary, we believe that Mr. Cecil correctly concluded that the new tax law has not drastically changed the impact under the 10(b)(4) case of a $150 million deduction, and that this is suggestive that future tax changes are not likely to have dramatic impact either. (CNO Exh. 68 at 6-8.)

6. NOPSI's contention that there are no additional measures available to aid NOPSI in its financing in the event of an imprudence deduction.

The foregoing conclusions have been reached without taking into consideration any specific cash conservation measures available to NOPSI other than those inherent in the computer forecasts. However, certain additional measures were suggested by Mr. Palast, and there was extensive testimony as to the availability of funds arising from the reconstitution of NOPSI's pension plan. These matters are treated below.

Mr. Palast suggested that NOPSI could utilize capital leases and sale-leasebacks in order to boost its cash flow—at the level of 50 percent of NOPSI's new plant spending—but without resort to selling and leasing back major current assets, including NOPSI's headquarters. (CNO Exh. 49 at 54.) NOPSI has responded that this level is unrealistically high in that the balance of forecasted construction additions for 1987 through 1995 ranges from $21 million

to $31 million per year, and about $17 million to $21 million per year is needed to back certain of its debt obligations, leaving about $6 million per year available for leasing to provide cash flow, and this is further constrained by tax laws. (NOPSI Exh. 71 at 22.) The evidence is not sufficiently developed for us to reach a conclusion in this matter, beyond stating that some undetermined amounts could be utilized for a leasing program to generate cash flow.[88]

It was also suggested that NOPSI could utilize short term borrowing and finance its accounts receivable. NOPSI was, it turned out, able to secure a line of credit from Hibernia Bank in the amount of $10 million following the rate settlement. NOPSI contends, however, that a substantial disallowance would trigger a "no material adverse change clause" in the credit agreement and possibly preclude further use of the line of credit. (NOPSI Exh. 71 at 23.) NOPSI apparently also has access to short term borrowing from the Middle South money pool, an arrangement in which companies in the System either lend excess funds or borrow on a short-term basis. NOPSI contends that all borrowings are "on demand" and are available only on a short term basis, not compatible with the financing needs posed by an imprudence deduction. (*Id.* at 24.) Moreover, regarding accounts receivable financing, NOPSI did in fact enter into an arrangement for accounts receivable financing in the amount of approximately $25 million, but its ability to utilize this source may, as a practical matter, be limited.[89]

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[88] As previously indicated, NOPSI sold $75 million in new bonds in May 1987. The terms of the indenture underlying the bonds prohibit sale and leaseback arrangements. However, those terms may have to be renegotiated for other reasons in view of the Council's action here, and we do not therefore take such restrictions to be necessarily inflexible. Similar terms were contained in NOPSI's issuance of $40 million of bonds in January 1988.

[89] Subsequent to the hearings, NOPSI issued $75 million in General

Another possible measure available to the Company is the recapture of excess funds from NOPSI's pension plan. (CNO Exh. 49 at 54-55.) Extensive testimony was taken on this issue from the Council's consultant, Mr. Camus, and from Mr. Haneberg, the actuary for NOPSI's pension plan.

NOPSI's pension plan is a "defined benefit" plan, which is to say that the plan specifies the benefits to be paid to NOPSI's employees upon their retirement. (CNO Exh. 48 at 4; NOPSI Exh. 80 at 2.) NOPSI's plan generally defines annual benefits as a percentage of a beneficiary's highest five year average salary multiplied by the beneficiary's years of service in the Company. (CNO Exh. 48 at 5; NOPSI Exh. 80 at 2.) NOPSI makes annual contributions to the plan in amounts calculated, by actuarial methods, to provide these benefits. (CNO Exh. 48 at 4.) The plan's benefits do not increase automatically when the plan becomes overfunded. (*Id.*) Rather, NOPSI must formally amend the plan to effect an increase in benefits. (*Id.*)

Mr. Camus testified that NOPSI's pension plan is overfunded, and calculated the excess assets in the plan to be $31.2 million as of December 31, 1985. (*Id.*) He estimated that the excess amount could have grown to $41 million by mid-1986, due to gains in the stock market during the first half of that year. (*Id.* at 8-9.) Mr. Camus testified that these excess funds could be recaptured for the Company's use following termination of the plan, with full protection for NOPSI's employees and retirees. (*Id.* at 3-4.)

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and Refunding Rate Recovery Bonds, the terms of which restrict its use of short term borrowing and accounts receivable financing. Specifically, NOPSI was obligated to terminate the latter by August 21, 1987. It cannot incur short-term debt (one year or less maturity) above a formula limitation. For reasons previously indicated, the specific terms that NOPSI negotiated with its lenders in this instance may not be absolute restraints.

According to Mr. Camus, such terminations are becoming a common means for companies to free up excess pension plan assets. (*Id.* at 3.) Termination of plans, and reversion of funds to the employer, are governed by the federal Employee Retirement Income Security Act, as recently amended by the Single Employer Pension Plan Amendments Act of 1986 ("SEPPAA"), which simplified and shortened termination procedures. (*Id.* at 9.) Upon termination, plan assets are distributed to beneficiaries in the form of insurance company annuities, and excess assets revert to the employer. (*Id.* at 13.) The employer may elect to establish a new plan for future accruals of benefits. (*Id.*)

Mr. Camus emphasized that NOPSI's employees and retirees could be protected from any losses to their expected benefits under these procedures, and depending on the size of the insurance carrier chosen, would likely be *safer* from loss than under the current NOPSI plan. (*Id.* at 13-15.) Benefits accrued at the time of termination would be guaranteed by the insurance company, which typically has surplus funds much greater than the surplus of NOPSI's plan. (*Id.* at 15.) The Equitable, for instance, had surplus funds in excess of $1 billion at the time of Mr. Camus' testimony. (*Id.*) Further, future accruals of benefits could be provided through the establishment of a new plan, at NOPSI's discretion. (*Id.* at 14.) Mr. Camus cited a recent study commissioned by the federal Department of Labor, which studied 97 representative termination applications pending before the Pension Benefit Guarantee Board after January 1984. The report concluded that individuals' accrued benefits at the point of termination were "fully protected." (CNO Exh. 48 at 11.) Moreover, all but six of the 97 plans were replaced with new plans, most of which provided identical or greater benefits than their predecessors. (*Id.*)

The basic elements of Mr. Camus' testimony are undisputed and, for the most part, are supported by the testimony of Mr. Haneberg. Mr. Haneberg testified that the NOPSI plan is overfunded (Tr. 3057), and agreed that Mr.

Camus' figure of $31.2 million was a reasonable estimate of the excess on a termination basis. (NOPSI Exh. 80 at 8; Tr. 3058.) In fact, Mr. Haneberg performed his own calculation of the excess as of October 1, 1985, and found it to be $30,900,000. (NOPSI Exh. 80 at 5.) He did not offer a more recent figure. Mr. Haneberg knew of no legal impediment to termination of NOPSI's plan (Tr. 3058) and agreed that the excess funds, with certain adjustments, would revert to the Company upon termination. (Tr. 3058.)

We conclude that termination and reestablishment of NOPSI's pension plan could provide the company with an influx of cash. Although the reversion may be subject to one or more significant offsets (including, for instance, a ten percent federal excise tax, *see* CNO Exh. 48 at 16-17; NOPSI Exh. 80 at 8-11), as well as to fluctuations in the stock and bond markets, the amount of the reversion is potentially several tens of millions of dollars.

The Council also takes no position as to whether NOPSI *should* terminate and reestablish its pension plan, but merely notes that this source of cash is available. Moreover, it may be proper that the money resulting from the reestablishment of the plan should promptly be returned to the ratepayers.

Mr. Palast suggested that upon termination, NOPSI should be granted free use of the reverted funds to finance a portion of its phase-in expenses, but that the funds be returned to consumers by amortizing the sum to rate income over twenty years. (CNO Exh. 49 at 54-55.) We do not rule on this matter as neither the termination of NOPSI's plan nor the ratemaking treatment of the reverted funds is presently before us.

We also note that the witnesses took issue over several matters, including the extent to which adjustments would partially offset the reverted funds, the timing of the reversion, and the cost of a new plan. None of these undermine our conclusion that termination and re-

establishment of NOPSI's pension plan could free up millions of dollars.

In short, while the amounts remain unclear, and while we do not rely on the availability of financing from any of the measures noted above, NOPSI appears to have other significant sources of funds available to it to meet its financing needs following an imprudence deduction.

VIII. IMPRUDENCE DISALLOWANCE

On the basis of the record before us, we conclude that NOPSI's conduct fell short of prudent utility management, to the detriment of its ratepayers and its shareholders as well. NOPSI's conduct has resulted in higher than prudently-incurred costs to the company and an unnecessarily strained financial condition. We conclude that a disallowance in rates is warranted in order to spare the company's retail ratepayers from the full consequences of management imprudence and, in line with traditional ratemaking law, that NOPSI's shareholders should bear the consequences of management imprudence. However, the disallowance remedy we will direct in the circumstances here recognizes the need to balance the interests of the company's ratepayers with those of its shareholders (and creditors) and the particular circumstances in which this matter has arisen.

If NOPSI were a company with greater financial resources, a larger disallowance than what we order here could be considered, without imperiling the company's ability to continue to pay its monthly bills to SERI for power purchases from Grand Gulf I and continue as a going concern. The reality is, however, that NOPSI has limited financial resources. As a result, NOPSI, on the evidence here, can sustain only a limited disallowance in rates for imprudence, and still continue as a viable concern making payments to SERI for Grand Gulf I power and meeting

its responsibilities. We do not think it unreasonable to create a remedy appropriate to these circumstances.

Accordingly, the Council directs that $135 million of NOPSI's currently deferred Grand Gulf I expenses be disallowed from recovery in retail rates in the future. This disallowance is in addition to the $51.2 million absorbtion of deferred Grand Gulf I expenses that NOPSI agreed to in March, 1986. A one-time write-off of $135 million in 1987 is within the limits which NOPSI can sustain and still continue its payments to SERI, according to the evidence. In fact, the $135 million disallowance is somewhat less than the $150 million amount (and more) which certain experts concluded is sustainable. The reduced disallowance will, in our view, provide a buffer or margin of approximately ten percent to allow for the uncertainty inherent in financial projections and for the possibility that circumstances could change to NOPSI's detriment.

A one-time write-off of $135 million will, of course, have a substantial effect on NOPSI's financial condition for one or two years, following which time it is expected that NOPSI's financial condition will improve rapidly. Even during this time, however, NOPSI will be able to continue to pay its bills to SERI for Grand Gulf I and remain a viable concern. This assumes willingness by NOPSI's shareholder, MSU, to infuse a reasonable amount of common equity in NOPSI (to be repaid to MSU in the early 1990's). We believe such an assumption is fair and warranted, because shareholders should share the cost burden[90] of managerial imprudence and in light of the Council's

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[90] NOPSI's ratepayers already share this burden to the extent that the $135 million disallowance ordered is less than half of what Mr. Komanoff recommends, at the low end of his range. Mr. Komanoff found that the imprudence of NOPSI's management kept NOPSI from realizing savings amounting to between 62 and 31 percent of its cost of Grand Gulf I. A $150 million disallowance would represent approximately 16 percent of the cost of Grand Gulf I to NOPSI. (Tr. 3331.)

efforts to maintain NOPSI's solvency and ability to discharge its responsibilities by adopting a moderate imprudence remedy.

Mr. Cecil presented three alternatives to adjust NOPSI's rates to reflect a disallowance by the Council here. (CNO Exh. 68 at 9-11.) We believe that NOPSI's ratepayers should see some of the effect of the disallowance, through reduced rate increases, prior to the end of the phase-in plan in 1996-7 adopted in Resolution R-86-112. Our order, in effect, adjusts the increases in the Company's electric rates and charges specified in Resolution R-86-112. This is, in our view, within the Council's reservation of right to conduct this inquiry into the prudence of NOPSI's involvement in Grand Gulf and issue orders with respect thereto.

NOPSI's rate increases reflected in Paragraphs 4 and 5 of Resolution R-86-112 shall, in effect, be adjusted as follows, to reflect the $135 million disallowance ordered here. For bills rendered on and after April 9th of each of the following years, NOPSI shall be allowed to increase its base rates on an annual basis by the following additional amounts:

1988 - $16.6 million;
1989 - $17.3 million; and,
1990 - $18.1 million.

For bills rendered on an after April 9th of years subsequent to 1990, NOPSI shall be entitled to increase its base electric rates by 4.5% of $420.7 million compounded annually until: (a) Grand Gulf I costs are being fully recovered on a current basis, and (b) the amounts previously deferred, less $135 million of disallowance, have been fully recovered.

NOPSI shall reflect the disallowance by reducing the amount of deferred Grand Gulf I expense to be collected in future years by $135 million. The reserve for deferred taxes applicable to the deferred Grand Gulf I expenses

shall also be adjusted to reflect the appropriate tax effects of the disallowance. NOPSI shall not be permitted to recover from ratepayers any carrying charges on the $135 million reduction, from the date of the disallowance forward.

The remedy ordered by the Council shall be a one-time disallowance and adjustment. With this remedy, the prudence inquiry of NOPSI's management vis-a-vis Grand Gulf I is terminated, and no further amount of disallowance shall be considered in the future.

Moreover, in order to ensure that the economic effects of the disallowance are in harmony with the expert testimony here, the Council recognizes its responsibility to act in a timely fashion to meet NOPSI's legitimate needs in the future for rate relief based on increased costs and similar grounds.

Our order here today does not prejudice or affect in any way pending litigation pertaining to Grand Gulf, including the City's abrogation lawsuit against NOPSI, litigation before the United States courts in the 5th Circuit and the District of Columbia Circuit, and proceedings before the Federal Energy Regulatory Commission.

The evidence here regarding decision-making by NOPSI's management also leads us to conclude that there is need for some form of regulatory review of substantial, long-term commitments into which the company proposes to enter before such commitment is undertaken. Alternatively, substantial commitments could be conditioned upon specific approval by the Council.

There are presently statutory provisions requiring certification by the Council of a plan by NOPSI to begin construction of any new physical plant, or to extend or add to any existing plant, if the cost exceeds two percent of the company's rate base at the time of such construction, extension or addition. LSA-R.S. 33-4406. The Council must

certify that the public convenience and necessity require the proposed construction, extension or addition of physical facilities, and the Council is the sole and final judge of what the public convenience and necessity require, in every instance. (*Id.*) No such certification was ever requested by NOPSI for its Grand Gulf commitment because, the company argues, its commitment is a purchase of power that falls beyond the scope of LSA-R.S. 33-4406 (*i.e.*, its purchase of Grand Gulf power does not constitute construction, extension or addition of any physical plant, equipment, property or facility as covered by the certification requirement).

Although this issue is now being litigated in a lawsuit in Louisiana state courts, it is important for this Council to consider the adoption of a requirement, by resolution or ordinance, that requires NOPSI to seek certification by the Council of any purchase commitment in the future, which, when viewed in its entirety, represents a significant potential impact on NOPSI and its customers, in excess of, say, two percent of its then-current rate base.

It is the Council's intention to consider the promulgation of a certification or approval requirement for the company's purchase commitments in a separate docket to be initiated following the issuance of this order. All parties and the public will have the opportunity to make their positions on such a proposal known to the Council at that time.

The foregoing findings are determinations having been reviewed by the Council, the roll was called, and the result was as follows:

Yeas:

Nays:

The foregoing findings and determinations are adopted.

APPENDIX A

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May 21, 1986

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1300 Perdido Street
New Orleans, LA 70112

Re: Matter of Ex-Parte Application of New Orleans Public Service, Inc. for Increase in Electric Rates. Doc. No. CD-85-1

Dear Mr. Giarrusso:

This is to advise the City Council that the record of the above captioned proceeding was closed by agreement of the parties and the Hearing Officer on May 7, 1986.

Pursuant to City Council direction, the hearings called for this proceeding were held, as duly noticed, on March 4, 5 and 7, and on April 8, 9, 10, 11 and 14, 1986. During these eight days of hearing, some 116 Exhibits were introduced into the record, and direct testimony or depositions, obtained from 33 witnesses, were incorporated as part of approximately 2,400 pages of transcript. Following completion of the hearings the parties were offered an opportunity to correct the transcripts and the hearing record index.

The record includes all the exhibits, testimony, letters and documents admitted, transcripts developed, and the procedural Resolutions, Ordinances and other regulations

referenced. The original and one copy of the record is in the custody of Ms. Emma Williams, Clerk of the City Council. An index, which may also serve as a log of the record, has been prepared and is submitted herewith. Also submitted for your convenience, is a copy of the May 7 memorandum closing the record.

In my opinion, the hearings proceeded in an orderly manner, and an adequate record was developed in accordance with the requirements of the City Council. The record is hereby delivered to the City Council.

Yours truly,

/s/ John B. Farmakides
Hearing officer

Hon. J.I. Giarrusso
Ltr. May 21, 1986

cc: All Councilmen
Okla Jones, II, Esq.
Thomas Milliner, Esq.
Jon Eckert, Esq.
Brod Bagert, Esq.
Clint Vince, Esq.
Glen Ortman, Esq.
Beverly Zervigon, Esq.
Bruce Naccari, Esq.
Mr. Gary Groesch
Mr. Jose Cierra
Bernhardt Wruble, Esq.
Herschel Abbott, Jr., Esq.
Thomas Lind, Esq.
Emma Williams, City Clerk

Before the
City Council of New Orleans

Matter of Ex Parte Application of New Orleans Public Service, Inc. for an Increase of its Electric Rates. Docket No. CD-85-1

Memorandum for the Record: May 7, 1986

By telephone conference call on this date among Bernhardt Wruble, for the City Council, Herschel Abbott, Jr., for New Orleans Public Service, Inc. (NOPSI), Gary Groesch, for Citizens for Safe Energy, and with Jon Eckert and Kelly Meehan of the City Council research staff, the Hearing Officer convened a meeting of the parties. The matters discussed and actions taken were as follows:

1. The Hearing Officer noted the decision of the City Council in response to the issue he had raised concerning the proffer of the testimony of George E. White, Jr. on behalf of NOPSI. That decision was contained in two letters of the City Council, dated April 22, and April 30, 1986, wherein the City Council outlined a schedule of events and actions to be taken.

2. Also noted were the letters of NOPSI in response to the City Council, dated April 28, and May 2, 1986, contending that the schedule and conditions set for the receipt of the proferred testimony amounted to a denial of procedural due process and were not acceptable. (The name of Jon Eckert in the letter of May 2 was corrected to read Kelly Meehan.)

3. In view of the referenced documents in items #1 and #2, above, and the ensuing discusion, the Hearing Officer concluded that no further hearings were in order, and, accordingly, with the agreement of the parties, the record was closed.

4. It was also agreed that any transcript corrections to be offered by any party shall first be transmitted to the

other two parties with copy to the Hearing Officer. In order to complete this item, any such proposal shall be accomplished within 5 days. Any objections to such proposed corrections shall be made within 3 days of receipt, with copy to the Hearing Officer. That Officer will address the proposal, and any related objection, and make an appropriate determination for the record.

5. A copy of the record to be certified to the City Council will be transmitted by the Hearing Officer to the parties in draft form as soon as possible. Any proposed correction, amendment, etc., by any party, shall be transmitted to the Hearing Officer within 5 days, with simultaneous copy to the other two parties. The Hearing Officer will resolve any disagreement and certify the final record.

6. No other matter having been presented, the record was closed as noted and the telephone conference was concluded at 4:10 p.m., April 7, 1986.

/s/ John B. Farmakides
John B. Farmakides
Hearing Officer

Before the
City Council of New Orleans

Matter of Ex Parte Application of New Orleans Public Service, Inc. for an Increase of Its Electric Rates. Doc. No. CD-85-1

The official RECORD of the above captioned matter, compiled as of May 7, 1986, is set forth below in items 1 through 135 as follows:

A. Application, and Procedural Documents

1. Application for permanent rate relief, as filed by New Orleans Public Service Inc., on May 17, 1985, and resubmitted on Sep. 30, 1985 and Oct. 11, 1985.
2. Rules of Practice and Procedure, Ordinance No. 828 MCS (As amended) Art. VI, Sec. 52-100 *et.seq.*,
3. Referenced Resolutions of the City Council: R-85-636, Oct 10, '85; R-85-741, Dec 2, '85; R-86-43, Feb 6, '86; R-86-52, Feb 6, '86;
4. Referenced Letters of the City Council: S. Barthelemy to J. Cain dated Jan. 29, 1986; S. Barthelemy to J. Cain dated Feb. 14, 1986; S. Barthelemy to J. Cain dated Mar. 26, 1986
5. Certification of motion to City Council by Hearing Officer, dated April 14, 1986, and his Memorandum for the Record, dated May 7, 1986.
6. Determination by City Council on motion submitted, with Notices for continued proceedings, dated April 22, and April 30, 1986.

B. Exhibits: New Orleans Public Service, Inc.

7. NOPSI-Cunningham Ex. 1A
   Original testimony of S G Cunningham filed on May 17, 1985 — Mar.4:Tr.33
8. NOPSI-Cunningham Ex. 1B
   Additional testimony, Feb. 5, 1986 — Tr.33

9. NOPSI-Cunningham Ex. 1C
   Rebuttal testimony, Feb. 26, 1986 — Tr.33
10. NOPSI-McCletchie Ex. 2A
    Original testimony filed May 17, 1985 — Tr.83
11. NOPSI-McCletchie Ex. 2-B
    Additional testimony, Feb. 5, 1986 — Tr.83
12. NOPSI-McCletchie Ex. 2-C
    Rebuttal testimony, Feb. 26, 1986 — Tr.83
13. NOPSI-Randall Ex. 3
    Original testimony filed May 17, 1985 — Tr.119
14. NOPSI-Abadie Ex. 4-A
    Original testimony filed May 17, 1986 — Tr.122
15. NOPSI-Abadie Ex. 4-B
    Rebuttal testimony filed Feb 26, 1986 — Tr.122
16. NOPSI-Quivey Ex. 5
    Rebuttal testimony filed Feb. 26, 1986 — Tr. 135
17. NOPSI-Triech Ex. 6
    Original testimony filed May 17, 1985 — Tr. 168
18. NOPSI-Cain Ex. 7-A
    Original testimony filed May 17, 1985 — Tr. 172
19. NOPSI-Cain Ex. 7-B
    Additional testimony filed Feb. 5, 1986 — Tr. 172
20. NOPSI-Cuthbert Ex. 8
    Pg. 1 of 4 of Exhibit R.W.C.-5 — Mar.5:Tr.49
21. NOPSI-Cuthbert Ex. 9
    FERC Opinion #234 rendered June 13, 1985 — Tr.73
22. NOPSI-Cecil Ex. 10
    Copy prepared direct testimony before L.P.S.C. Docket #U-15689 — Tr.168
23. NOPSI-Cecil Ex. 11
    Test year revenue from testimony in L.P.S.C. Docket #U-15689 — Tr.174
24. NOPSI-Treich Ex.12
    From E.A. Cecil's Response to NOPSI Request Question #6, table 1 — Tr.222
25. NOPSI-Cecil Ex.13
    Work papers produced by E.A. Cecil in response

to Data Request Question #6, dated Feb. 27, 1986 Tr.231
26. NOPSI-Cunningham Ex.-14
White Bluff Capacity & Reserve Equalization Payments listing Mar.7:Tr.7
27. NOPSI-Cunningham Ex.-15
MSU Systems Capability listing Tr.12
28. NOPSI-Jones Ex.-16
Rebuttal testimony Tr.34
29. NOPSI-Haneberg Ex.-17
Rebuttal testimony Tr.92
30. NOPSI-Phillips Ex.-18A
Prefiled testimony, 5/17/85 Tr.113
31. NOPSI-Phillips Ex.-18B
Prefiled testimony, 2/26/86 Tr.113
32. NOPSI-Phillips Ex.-19
Computation of margin of earnings of 12/85 Tr.161
33. NOPSI-Phillips Ex.-20
Computation of margin of earnings of 1/86 Tr.162
34. NOPSI-Palast Ex.-21
Comparison of NOPSI rates Tr.203
35. NOPSI-Palast Ex.-22
Rate comparison of 4/84 and 1/86 Tr.206
36. NOPSI-Palast Ex.-23
Work papers: input-output model Tr.225
37. NOPSI-Palast Ex.-24
Input-output model computer printout Tr.235
38. NOPSI-Clemente Ex.-25
Written Clemente testimony Tr.281
39. NOPSI-Ex.26
Letter to Clerk of Council L. Siegel, 12/16/85 Tr.404
40. NOPSI-Ex.27
Attachment to Ltr of 12/16/85 (Memorandum) Tr.404

41. NOPSI-Ex.28
Attachement to Ltr of 12/16/85 (Statement of Objections) Tr.404
42. NOPSI-Ex.29
Letter of 2/14/86 to James M. Cain Tr.404
43. NOPSI-Ex.30
Letter of 3/14/86 to Mr. Wruble Tr.405
44. NOPSI-Ex.31
Letter of 3/18/86 to Mr. Cain Tr.405
45. NOPSI-Ex.32
Letter of 3/24/86 Tr.405
46. NOPSI-Ex.33
Letter of 3/26/86 to Hon. Emma Williams Tr.405
47. NOPSI-Ex.34
Letter of 3/24/86 to Mr. James Cain Tr.405
48. NOPSI-Cain Ex.35
Prefiled testimony James M. Cain Tr.467
49. NOPSI-Hurstell Ex.36
Testimony 12/16/85 Tr.575
50. NOPSI-Hurstell Ex.37
Rebuttal testimony 3/31/86 Tr.576
51. NOPSI-Lundberg Ex.38
Deposition Tr.827
52. NOPSI-Trumps Ex.39
Pre-filed direct testimony Tr.857
53. NOPSI-Ex.40
Pre-filed rebuttal testimony Tr.857
54. NOPSI-Ex.41
Exhibits 1,2 and 3 Tr.857
55. NOPSI-Ex.42
1979 Annual Report-Middle South Utilities ** Tr.861
56. NOPSI-Louiselle Ex.43
Prefiled testimony Tr.1095
57. NOPSI-Hendrie Ex.44
Rebuttal testimony Tr.1252
58. NOPSI-Pearl Ex.45
Direct testimony 12/16/85 Tr.1349

59. NOPSI-Ex.46
Rebuttal testimony 3/31/86 Tr.1353
60. NOPSI-Ex.47
FERC brief Docket #85-3654 Tr.1435
61. NOPSI-Ex.48
Letter from Councilman Giarrusso to Mr. Sexton 1/13/86 Tr.1448
62. NOPSI-Ex.49
Letter to Councilman Giarrusso from P.G. Wright 4/3/86 Tr.1448
63. NOPSI-Komanoff Ex.50
Read, signed & corrected deposition Tr.1494
64. NOPSI-Hurstell Ex.51
Speech in New Orleans, La. Tr.1604
65. NOPSI-Komanoff Ex.52
Testimony before the Subcommittee on Energy & Environment 7/12/79 ** Tr.1683
66. NOPSI-McWhinney Ex.53
Prefiled testimony Tr.1705
67. NOPSI-McLetchie Ex.54
Deposition dated 3/31/86 Tr.1916
68. NOPSI-Palast Ex.55
Deposition dated 3/3/86 Tr.1916
69. NOPSI-Proffer of White testimony
To be submitted on latter date Tr.1918

C. Exhibits: City of New Orleans

70. CNO-Ex.-1
Second data request to NOPSI #CNO-2-6 Mar.4:Tr.60
71. CNO-Ex.-2
White Bluff & reserve equalization payments July '85 through Feb. '86 Tr.74
72. CNO-Ex.-3
Filing by AP&L with S.E.C. Jan. 24, 1986 Tr.97
73. CNO-Ex.-4
AP&L settlement Sept. 5, 1985 Tr.98

74. CNO-Ex.-5
Work papers of R.J. Abadie Tr.129
75. CNO-Ex.-6
Excerpt Electric Light & Power, Feb. '86, Vol. 64, No. 2 Tr.153
76. CNO-Ex.6-A
Prepared direct testimony of R.W. Cuthbert Mar.5:Tr.15
77. CNO-Ex.6-B
(RWC-1) Record of Testimony & Regulatory Experience Tr.15
78. CNO-Ex.6-C
(RWC-2) Cost of Capital Data Tr.15
79. CNO-Ex.6-D
(RWC-3) Financial Data for MSU & Comparable Electric Utilities Tr.15
80. CNO-Ex.6-E
(RWC-4) MSU's Cost of Equity Capital Tr.16
81. CNO-Ex.6-F
(RWC-5) Financial data for NOPSI & MNU Operating Cos. Tr.16
82. CNO-Ex.6-G
(RWC-6) NOPSI's Capitalization & Weighted Cost of Capital Tr.16
83. CNO-Ex.7-A
Prepared direct testimony of E.A. Cecil Tr.112
84. CNO-Ex.7-B
Exhibits to direct testimony of E.A. Cecil Tr.112
85. CNO-Ex.7-C
Preliminary Analysis of Settlement Proposal of Testimony & Exhibits of NOPSI filed Feb. 5, 1986 Tr.112
86. CNO-Ex.7-D
Corrected exhibit of E.A. Cecil previously marked 7-B Tr.128
87. CNO-Ex.-8
Prepared direct testimony of R.F. Camus Tr.197

88. CNO-Ex.-9
Request for production of data & documents of R.F. Camus on behalf of City of New Orleans — Tr.217

89. CNO-Ex.10
Order on rehearing numbered U-15689-A — Mar.7:Tr.117

90. CNO-Ex.11
Order Number U-16092-A — Mar.7:Tr.119

91. CNO-Ex.12
Solomon Bros. report of 1/6/86 — Tr.138

92. CNO-Ex.-13
Balance sheet of 12/31/84 — Tr.150

93. CNO-Ex.-14
Balance sheet of 6/30/85 — Tr.150

94. CNO-Ex.-15
Prefiled testimony of G.A. Palast — Tr.168

95. CNO-Ex.-16
Deposition of Mr. Carter — Tr.413

96. CNO-Ex.-17
Deposition of Mr. Jung — Tr.413

97. CNO-Ex.-18
Deposition of Mr. Brodtmann — Tr.413

98. CNO-Ex.-19
Deposition of Mr. Duncan — Tr.413

99. CNO-Ex.-20
Deposition of Mr. Krebs — Tr.413

100. CNO-Ex.-21
Deposition of Mr. Teamer — Tr.413

101. CNO-Ex.-22
Deposition of Mr. Trumps — Tr.413

102. CNO-Ex.-23
Deposition of Mr. Smallpage — Tr.413

103. CNO-Ex.-24
Deposition of Mr. McLetchie — Tr.413

104. CNO-Ex.-25
Deposition of Mr. Chavanne — Tr.413

105. CNO-Ex.-26
Deposition of Mr. Talbot — Tr.414

106. CNO-Ex.-27
Deposition of Mr. Wyatt — TR.414

107. CNO-Ex.-28
Deposition of Mr. Cain — Tr.414

108. CNO-Ex.-29
Deposition of Mr. Hurstell — **Tr.414

109. CNO-Ex.-30
System Agreement Filing ER82483000 — TR.430

110. CNO-Ex.-30(a)
MLH Exhibit 5A — Tr.437

111. CNO-Ex.-30(b)
Memorandum from E.A. Louberger — Tr.520

112. CNO-Ex.-30(c)
James M. Cain LPSC testimony — Tr.541

113. CNO-Ex.-31
Testimony J. Lundberg 3/19/86 — Tr.826

114. CNO-Ex.-32
Ltr. Congressman Markety 3/4/86 — Tr.1155

115. CNO-Ex.-33
Testimony B.M. Louiselle 12/7/83 in Docket Nos. U15684 & U15689. Pages 749-822 & 846-875 — Tr.1177

116. CNO-Ex.-34
Cover page & Pages 7&8 of 1978 Licensing, Design & Construction Problems report — Tr.1305

117. CNO-Ex.-35
Testimony J.M. Hendrie before New Hampshire Utilities Commission — Tr.1305

118. CNO-Ex.-36
Response to counsel data request PD-11 — Tr.1359

119. CNO-Ex.-37
Response to counsel date request PD-13 — Tr.1387

120. CNO-Ex.-38
C. Komanoff prefiled testimony & attachments — Tr.1460

121. CNO-Ex.-39
Book *Power Plant Cost Escalation* by C. Komanoff published 1981 ** Tr.1566
122. CNO-Ex.-40
Compilations of Council, CNO dated 3/19/86 Tr.1696
123. CNO-Ex.-41
Mooz report Tr.1809
124. CNO-Ex.-42
NOPSI Board of Directors minutes: 9/72-present Tr.1908
125. CNO-Ex.-43
Deposition of J. Cain in Civil Action #85-5273 Tr.1909
126. CNO-Ex.-44
Deposition of E. Lupberger in Civil Action #85-5273 Tr.1909
127. CNO-Ex.-45
Deposition of G. Palast; dtd: March, 1986 Tr.1910

D. Transcripts

128. Tuesday, March 4, 1986. Pages 1-194
129. Wednesday, March 5, 1986. Pages 1-261
130. Friday, March 7, 1986. Pages 1-371
131. Tuesday, April 8, 1986. Pages 372-730
132. Wednesday, April 9, 1986. Pages 731-1246
133. Thursday, April 10, 1986. Pages 1247-1436
134. Friday, April 11, 1986. Pages 1437-1700
135. Monday, April 14, 1986. Pages 1701-1924 and Pages 1-45

**1. Note: Exhibits identified in items 38, 55, 65, 108 and 121 were admitted with restrictions as set forth in the appropriate pages of the transcript.

2. Note: Transcript pages are numbered on a daily basis for March 4 and 5, and thereafter, consecutively commencing on Friday, March 7, 1986, except for new pages 1-45 as prepared for Monday, April 14, 1986.

I hereby certify that items 1 through 135 set forth above were adduced and compiled in the above captioned matter.

/s/ John B. Farmakides
John B. Farmakides
Hearing Officer

JOHN B. FARMAKIDES
Attorney At Law
5835 Upton Street
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(703) 241-0006

May 8, 1986

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Mr. Gary L. Groesch
Citizens for Safe Energy
P.O. Box 791169
New Orleans, Louisiana 70179-1169

Gentlemen:

Transmitted herewith is a copy of a memorandum for the record setting forth the matters discussed and actions taken during the telephone conference held on May 7, 1986.

Also please find a draft copy of an index of those items that will constitute the record in this proceeding. Please review the same and advise me, within 5 days, of any suggested corrections, amendments, etc. I will prepare and certify the final record as soon as possible thereafter.

Thank you for your cooperation.

Sincerely,

/s/ John B. Farmakides
John B. Farmakides

Encls.

APPENDIX B

John B. Farmakides
Attorney at Law
5835 Upton Street
McLean, Virginia 22101
(703) 241-0006

April 16, 1987

Honorable Joseph I. Giarrusso
Council President
New Orleans City Council
1300 Perdido Street
New Orleans, LA 70112

Re: Ex Parte Application of New Orleans Public Service Inc. for increase in Electric Rates, Docket No. CD-85-1

Dear Mr. Giarrusso:

This is to advise the City Council that the record has been completed in the above captioned matter to include, by direction of the City Council, the "remedy phase" of the said application.

The hearings were held in accordance with the schedule set by the Council. Thereafter, the parties were provided with reasonable time after receiving the final transcripts to review the same, submit any necessary corrections thereto, and file briefs. The Hearing Officer received a copy of the transcript for the final day of hearing on April 4, 1987.

A joint telephone conference with the parties was held on April 10, 1987, to discuss certain outstanding matters related to this proceeding as well as to the bond financing phase of the application. During that conference, the final record of this matter was closed as of April 10, 1987.

The attached certified index of the "remedy phase" to be included as part of the official record of the above captioned matter is hereby delivered to the City Council. It should be noted that the complete official record index of Docket No. CD-85-1 is composed of four segments, identified and forwarded by separate letters dated: May 6, 1986, February 12, 1987, April 10, 1987, and April 16, 1987. All four segments and all materials developed and compiled during the hearings have been delivered to the custody of the Clerk of the City Council.

Yours truly,
/s/ John B. Farmakides
Hearing Officer

Encl. as stated.

Before the
City Council of New Orleans

Matter of Ex Parte Application of New Orleans Public Service, Inc. for an Increase of Its Electric Rates. Doc. no. CD-85-1

The official *RECORD* of the above captioned matter, initially compiled as of May 7, 1986, is further augmented by Order of the City Council to include additional evidentiary material as set forth in items 1 through 67 below compiled as of April 10, 1987, as follows:

A. Application, and Procedural Documents

1. All materials previously included in the official record dated May 7, 1986.
2. All relevant Orders of the City Council, including those dated: May 20, 1986, July 7, 1986, July 30, 1986, August 29, 1986, December 2, 1986, and February 10, 1987.
3. Petition to intervene by the Attorney General of Louisiana dated October 22, 1986; approved by Res. R-87-10 of the City Council.
4. All materials previously included in the official record relating to the Tax Act Inquiry phase and the Financing Application phase of this Docket, submitted by letter dated February 12, 1987, and by letter dated April 10, 1987, respectively.,

B. Exhibits: New Orleans Public Service, Inc.

5. NOPSI-Excerpts City Council Hearing Ex.57 Tr.2195
6. NOPSI-Present Value Work Table Ex.58 (Grand Gulf Fuel Savings) Tr.2195
7. NOPSI-Excerpts City Council Hearing Ex.59 Tr.2197

8. NOPSI-G. Palast Ex.60 Deposition Tr.2315
9. NOPSI-G. Palast Ex.61 Response to data request from NOPSI Tr.2352
10. NOPSI-G. Palast Ex.62 Deposition Tr.2417
11. NOPSI-Eisenberg Ex.63 Deposition Tr.2465
12. NOPSI-A. Brimmer Ex.64 Pre-filed testimony Tr.2484
13. NOPSI-Barach Ex.65 Deposition-Oct. 17, 1986 Tr.2531
14. NOPSI-Hahne Ex.66 Rebuttal testimony Tr.2539
15. NOPSI-R.W. Jones Ex.67 Rebuttal testimony Tr.2704
16. NOPSI-R.W. Jones Ex.68 Deposition Tr.2704
17. NOPSI-Cunningham Ex.69 Rebuttal testimony Tr.2765
18. NOPSI-Cunningham Ex.70 Deposition Tr.2779
19. NOPSI-Mc Letchie Ex.71 Rebuttal Testimony Tr.2844
20. NOPSI-Mc Letchie Ex.72 Deposition Volume I Tr.2845
21. NOPSI-Mc Letchie Ex.73 Deposition Volume II Tr.2845
22. NOPSI-Mc Letchie Ex.74 Testimony Tr.2854

23. NOPSI-Palast Ex.74A
Letter to M. Caruso from G. Palast Tr.2852

24. NOPSI-Financial Model Run Ex.75
Run 10-B Tr.2871

25. NOPSI-Financial Model Run Ex.76
Run 10-C New Tax Law Tr.2894

26. NOPSI-NOPSI Ex.77
Response to City's Data Request #13 Tr.2899

27. NOPSI-Louiselle Ex.78
Rebuttal testimony Tr.3008

28. NOPSI-Louiselle Ex.79
Deposition Oct. 20, '86 Tr.3008

29. NOPSI-Louiselle Ex.79A
Errata Sheet Tr.3008

30. NOPSI-Haneberg Ex.80
Pre-filed testimony Tr.3035

31. NOPSI-Haneberg Ex.81
Deposition 10/20/86 Tr.3035

32. NOPSI-Haneberg Ex.82
Supplemental testimony data request Tr.3054

33. NOPSI-Marked Ex.83
Spread Sheet Tr.3108

34. NOPSI-Marked Ex.84
Louisiana Public Service Commission
Order #15689 Tr.3108

35. NOPSI-Mc Letchie Ex.85
Supplemental rebuttal testimony Tr.3133

36. NOPSI-Mc Letchie Ex.86
Deposition with attached exhibits Tr.3134

C. Exhibits: City Council

37. CNO-NOPSI Computer Run Ex.46
Computer Run 10-B Preferred Dividends Tr.1998

38. CNO-Cecil Ex.47
Deposition Tr.1998

39. CNO-Haneberg Ex.48
Testimony Tr.2220

40. CNO-Palast Ex.49
Testimony & exhibits Sept. 1986 Tr.2308

41. CNO-Palast Ex.50
Rebuttal testimony Oct. 1986 Tr.2308

42. CNO-Palast Ex.51
Deposition (see NOPSI EX. 60) Tr.2322

43. CNO-Palast Ex.52
Computer run Tr.2884

44. CNO-Hahne Ex.53
Deposition Tr.2544

45. CNO-DeLoitte Haskins & Sells Ex.55
(Unqualified) Auditors opinion Tr.2632

46. CNO-DeLoitte Haskins & Sells Ex.55
Inter-office memo Dated April 23, 1986 Tr.2632

47. CNO-H. Abbott Ex.56
Letter April 18, 1986 Tr.2632

48. CNO-NOPSI Ex.57
Excerpt 1985 Annual Report
DHS Opinion 3-14-86 Tr.2632

49. CNO-GAAS Guide Ex.58
Pages 8.49 & 8.50 Tr.2632

50. CNO-NOPSI Ex.59
Excerpts from SEC Form 10Q
for qt. ending 3/31/86 Tr.2662

51. CNO-NOPSI Ex.60
Excerpts from SEC Form 10Q for qt. ending 6/30/86 — Tr.2662

52. CNO-NOPSI Ex.61
Forms U-1, filed 9/23/86 — Tr.2662

53. CNO-McLetchie Ex.62
Work papers — Tr.2979

54. CNO-McLetchie Ex.63
Work papers — Tr.2979

55. CNO-Palast Ex.64
Errata sheet of deposition — Tr.3003

56. CNO-G. Palast Ex.65
Pre-filed testimony — Tr.3249

57. CNO-G. Palast Ex.65A
Work papers — Tr.3249

58. CNO-G. Palast Ex.66
Deposition Feb. 20, 1987 — Tr.3253

59. CNO-G. Palast Ex.67
Computer financial analysis — Tr.3267

60. CNO-E.Cecil Ex.68
Pre-filed testimony — Tr.3342

D. Exhibits: Citizens for Safe Energy (Intervenor)

61. SAFE-Eisengerg Ex.3 (see footnote 2)
Pre-filed testimony & exhibits — Tr.2438

62. SAFE-Barach Ex.4
Pre-filed rebuttal testimony Oct. 10, 1986 — Tr.2522

E. Transcripts

63. Tuesday, October 21, 1986. Pages 1927 - 2226 and

Pages 1 - 23

64. Wednesday, October 22, 1986. Pages 2227 - 2557

65. Thursday, October 23, 1986. Pages 2558 - 2878

66. Friday, October 24, 1986. Pages 2879 - 3120

67. Tuesday, February 24, 1987. Pages 3121 - 3420

F. Footnotes

Note #1. By agreement of the parties and the Hearing Officer, made during a joint telephone conference call on April 10, 1987, the final evidentiary record in the above captioned matter was closed as of that day, April 10, 1987, except as to certain matters related to the financing application phase of this proceeding. Those matters are noted in the separate record index of that phase submitted earlier by letter dated April 10, 1987.

Note #2. Exhibits No.#1 and No.#2 by the party Citizens for Safe Energy were marked but not offered or admitted into the record.

Note #3. The Attorney General for the State of Louisiana, admitted as a party Intervenor in the proceeding, did not present testimony or file exhibits to the record, but indicated an intention to file a post hearing brief. Such a brief was filed jointly with the other Intervenor, Citizens for Safe Energy.

Note #4. Docket No. CD-85-1 includes all evidentiary material relating to the Prudence and Remedy aspects of the inquiry, as well as to the Tax Act Inquiry phase and the Financing Application phase. For convenience, and by agreement of the parties, the last two phases were separately compiled and indexed.

I hereby certify that items 1 through 67 set forth above were adduced and compiled in the above captioned matter.

/s/ John B. Farmakides
John B. Farmakides
Hearing Officer

cc.: All Council Members
Ms Emma Williams (Clerk of Council)
Brod Bagert, Esq.
Joseph Bernstein, Esq.
Mr. Gary L Groesch
Okla Jones III, Esq.
Thomas O Lind, Esq.
Mr. Kelly Meehan
Bruce Naccari, Esq.
Glen L Ortman, Esq.
Prof. Richard Pierce, Jr.
Warren M Schultz, Jr. Esq.
Mr. Jose Sierra
Alan C Wolf, Esq.
Bernhardt K Wruble, Esq.
Beverly Zervignon, Esq.

APPENDIX C

WITNESSES AND KEY INDIVIDUALS

Jeffrey A. Barach

Mr. Barach is a professor of Management at Tulane University. He began teaching at the University as an Assistant Professor in 1965, was an Associate Professor from 1968 to the end of 1985, and has been a full professor since that time. Mr. Barach's principal areas of concentration are: Business Policy; Business, Social and Individual Values; and Marketing, Advertising, Consumer Behavior, and Mass Communications. He has also held positions concurrent with his University post with several management consulting firms. Mr. Barach holds an A.B. from Harvard College and an M.B.A. and D.B.A. from the Harvard University Graduate School of Business Administration.

Andrew F. Brimmer

Mr. Brimmer is President of Brimmer and Company, Inc., an economic and financial consulting firm based in Washington. Mr. Brimmer holds a Ph.D. in economics from Harvard and has held various academic positions. Mr. Brimmer entered the government in 1963 as Deputy Assistant Secretary for Economic Policy Review for the U.S. Department of Commerce, he was later appointed by President Johnson to the position of Assistant Secretary for Economic Affairs. In 1966, he was appointed as a Member to the Board of Governors of the Federal Reserve Board. He left that position in 1974 and served as a Visiting Professor for two years in the Graduate School of Business Administration at Harvard University.

August J. Brodtmann

Mr. Brodtmann was employed by NOPSI from 1936 until his retirement in 1980. During his years at NOPSI, he

served in various capacities such as Assistant to General Auditor, Manager of property accounting, Assistant to Financial Vice President of NOPSI, Comptroller of NOPSI and Vice President of Finance of NOPSI. In addition, he served on the Middle South Finance Committee.

James M. Cain

Mr. Cain is presently President and Chief Executive Officer of both NOPSI (since 1978) and LP&L (since 1982). Beginning in 1978, Mr. Cain has served on the MSU, MSE, MSS and NOPSI Boards of Directors. Mr. Cain has been an employee of the Middle South System since 1960 when he started as a research assistant with NOPSI. He progressed through various jobs in NOPSI's Personnel Department, served as Vice President of personnel and Vice President of Administration. He then moved to MSS where he served as Executive Vice President and President from January 1975 to April 1978 before returning to NOPSI as president. Mr. Cain has both a Bachelor's and Master's Degree in Business Administration.

Fr. James C. Carter

Fr. Carter has been a member of the NOPSI Board of Directors since 1983. He is a Roman Catholic Priest and President of the Loyola University in New Orleans.

John H. Chavanne

Mr. Chavanne was employed by NOPSI from April 1966 until March 1985. He held various positions in the Methods & Procedures Department, was manager of the Budget & Statistical Department, served as Assistant Vice President of Finance, and Comptroller of NOPSI. In addition, Mr. Chavanne served as Vice President of Finance and Treasurer of NOPSI from November 1980 until consolidation of NOPSI and LP&L management. At that time he became Vice President of Corporate Control and Assistant Secretary of both NOPSI and LP&L. From November 1980 through November 1984, Mr. Chavanne regularly attended NOPSI Board meetings. He also served on Middle South System Finance Committee, Pension Plan Committee and Customer Information System Committee. Mr. Chavanne received his B.B.A., M.B.A. and J.D. from Loyola University in New Orleans. He is also a Certified Public Accountant.

Edward A. Cecil

Mr. Cecil is a partner in R.W. Beck and Associates, Engineers and Consultants, a national firm of engineers and consultants which provides services in areas such as design and construction engineering, environmental studies, power supply, power pooling, management systems, feasibility studies, systems engineering, and computer services. The firm has significant experience in the public utility field. Mr. Cecil has substantial experience in public utility matters, including rates, natural gas curtailment, power supply and resource planning and economic analyses. Mr. Cecil conducts a course on Electric Utility Retail Rate Design for the American Public Power Association. He has testified before a number of Federal and state regulatory commissions and courts. Mr. Cecil holds an A.B. and M.A. degrees from Colorado State University in Civil Engineering.

Shelton G. Cunningham

Mr. Cunningham became Senior Vice President for Marketing and Rates with Louisiana Power & Light Company (LP&L) and NOPSI in 1986. He began with LP&L in 1966 as a sales representative. In 1968 he became a rate analyst, was promoted to Rate Administration Manager in 1972, Assistant Director of Rates and Research in 1976 and Director in 1979. Mr. Cunningham was elected Vice President of Rates and Research in 1982 and supervised the functional consolidation of the Rate Departments of

LP&L and NOPSI. Mr. Cunningham holds a B.S. degree in Mechanical Engineering from Mississippi State University and is a registered Professional Engineer in Louisiana.

Brooke Duncan

Mr. Duncan has served on the NOPSI Board of Directors since 1967. He also serves on the MSU Board of Directors. Mr. Duncan is the owner of a local awning manufacturing company and a wholesale hardware distribution company.

Theodore Eisenberg

Mr. Eisenberg is a Professor of Law at Cornell University who has taught a variety of courses including Debtor-Creditor Law, Civil Rights Legislation, Corporate Taxation and Individual Taxation. Mr. Eisenberg has been a professor since 1977 when he began teaching at UCLA. He has participated in the University of San Diego's summer program at Oxford, and as a Visiting Professor of Law at Harvard Law School.

Robert L. Hahne

Mr. Hahne is a certified public account and Partner in the firm of Deloitte Haskins & Sells (DH&S), a public accounting firm, and is responsible for their public utility industry practice. His duties at DH&S include coordination of the public utility audit, tax, and consulting efforts of the Firm's approximately 100 offices. Mr. Hahne is co-author of *Accounting for Public Utilities*. He has appeared as an expert witness in court, the Federal Energy Regulatory Commission, and numerous state regulatory commissions. Mr. Hahne holds a B.A. in Economics and Business Administration from Central Methodist College.

Ronald L. Haneberg

Mr. Haneberg has been a Consulting Actuary with Buck Consultants since 1977. He serves as NOPSI's Pension

Plan actuary. Mr. Haneberg holds a B.A. in Mathematics and a J.D. from St. Louis University School of Law from which he graduated in 1969. Mr. Haneberg is a member of several Actuary organizations, as well as a member of the Missouri and American Bar Associations.

Joseph M. Hendrie

Dr. Hendrie is presently engaged in a private consulting engineering practice which provides services for private institutions and government agencies. He received his B.S. in physics from Case Institute of Technology and his PhD. in physics from Columbia University. He has worked at the Brookhaven National Laboratory where he performed research on nuclear power reactors, served as head of the Engineering Division, Department of Applied Science; Chairman, Department of Applied Science; Senior Scientist and Special Assistant to the Director. Dr. Hendrie served as Chairman of the Advisory Committee on Reactor Safeguards and Deputy Director, Technical Review of the Atomic Energy Commission, Directorate of Licensing. From August 1977 to June 1981 he served as Chairman, then Commissioner, then Chairman of the Nuclear Regulatory Commission.

Malcolm L. Hurstell

Mr. Hurstell is presently the Senior Vice President of Energy Delivery of NOPSI, responsible for executive management of System Engineering, Division Operations, and Consumer Services. Mr. Hurstell has been employed by NOPSI for approximately 37 years having served as the Senior Vice President and General Manager of NOPSI, responsible for the day-to-day operations of NOPSI; Vice President of Engineering and Production of NOPSI, responsible for operations of the Engineering, Electric Power and Energy Procurement Departments of NOPSI; Vice President of Engineering of NOPSI; and Manager of the Engineering Department of the Electric Systems Planning

Division. During his NOPSI career he has served on the Middle South Operating Committee planning subcommittee and has been a member of the Middle South Operating Committee since 1975. In addition, Mr. hurstell has been Senior Vice President of Energy Delivery of LP&L since February of 1985.

Robert W. Jones

Mr. Jones is a principal with Morgan Stanley & Company, Inc. specializing in public utilities, and as such has played a role in managing financial securities for NOPSI's parent company, Middle South Utilities. Mr. Jones holds a B.A. from Colgate University and an M.B.A. from Harvard. He has been with Morgan Stanley since 1974.

Arthur L. Jung

Mr. Jung has been a member of the NOPSI Board of Directors since 1957. He is Chairman of the Board of Jung Realty Co., Inc.

Charles Komanoff

Mr. Komanoff is a director and principal of Komanoff Energy Associates, an energy and economic consulting firm. He is a consultant, analyst and author on the economics of the electric utility, nuclear power and coal sectors of the United States economy. Mr. Komanoff has worked for the Council on Economic Priorities and the New York City Environmental Protection Administration. He has consulted for two agencies of the U.S. Congress, the U.S. Department of Energy, and government agencies of 15 states. Mr. Komanoff has written three books on the nuclear and coal electric generation, published in 1972, 1976 and 1981, which dealt with trends in electric power economics, technology, and regulation. In addition, he has published numerous articles in both general periodicals and professional journals. Mr. Komanoff has presented expert

testimony on electric utility economic matters before the U.S. Nuclear Regulatory Commission, four NRC Atomic Safety and Licensing Boards, and Public Utility Commissions of 12 states. He has been an invited witness on nuclear and coal power economic issues before several committees of Congress and was one of the three American witnesses to testify in the inquiry on nuclear power economics before the Select Committee on Energy of the House of Commons (U.K.). Mr. Komanoff graduated with honors from Harvard College, with a B.A. in Applied Mathematics.

Joseph J. Krebs

Mr. Krebs presently serves on the Board of Directors of both NOPSI and LP&L. He is Chairman and Chief Executive Officer of J.J. Krebs & Sons, Inc., an engineering consulting firm. Mr. Krebs received his B.S. in civil engineering from Tulane University.

Bruce M. Louiselle

Mr. Louiselle is presently President of ECONAT Inc., which provides consulting services specializing in public utility economics, finance and accounting. Mr. Louiselle received his B.A. in economics from George Washington University and his J.D. from the George Washington University Law Center. He has taught public utility economics at GWU School of Government and Business Administration, lectured at public utility seminars sponsored by NARUC and the Canadian Bar Association, and coauthored a paper on rate design. In addition, he has testified in over 200 proceedings before several state regulatory proceedings, the FERC, and the Canadian National Energy Board.

Edwin Lupberger

Mr. Lupberger is the Chief Executive Officer of Middle South Utilities, Inc. Prior to his selection as CEO, Mr.

Lupberger was Senior Vice President and Chief Financial Officer of Middle South Utilities, Middle South Services, Middle South Energy, and System Fuels, Inc.

Jack M. Lundberg

Mr. Lundberg is president of Lundberg, Marshall and Associates, Inc., a utility consulting firm which provides consulting services in such areas as generation and transmission system planning, financial feasibility studies and preliminary design and cost estimating. He received his B.S. in Electrical Engineering from the University of Wisconsin and a M.B.A. from New York University. Mr. Lundberg is a Professional Engineer in fourteen states and is a member of the Institute of Electrical and Electronics Engineers. He has been employed as an engineer for 23 years and has done extensive work in electric utility planning: while employed by American Electric Power Service Corporation, he participated in transmission planning, interconnection and pooling studies; while employed by Stanley Consultants, he conducted generation, transmission and distribution planning studies for rural and municipal electric systems. While employed by R.W. Beck and Associates, he worked primarily on planning and analyses related to electric power supply arrangements, feasibility studies, economic analyses, contract negotiations and rate studies. Mr. Lundberg has testified on public utility matters before the Federal Energy Regulatory Commission, the Nuclear Regulatory Commission, and the state commissions of Colorado, Michigan, Minnesota, Missouri, New Mexico, Ohio and Texas.

Malcolm H. McLetchie

Mr. McLetchie is the Senior Vice President of Accounting & Finance, and Treasurer of both NOPSI and LP&L—a position he has held since 1984. His responsibilities include NOPSI's and LP&L's accounting and financial reporting as well as their financing programs. In addition, he makes

presentations on the company's monthly financial operation at the respective Board of Directors meetings. Mr. McLetchie serves on the Middle South Finance Committee. Mr. McLetchie is a Certified Public Accountant who received his Bachelor Degree in Accounting from Wayne State University. He spent over 14 years in public accounting before joining MSS in 1977 as Assistant to the Vice President of Tax Services. He later became Director of Tax Services and then MSS Vice President of System Tax & Accounting.

Gregory A. Palast

Mr. Palast is a Senior Associate with Union Associates, a consulting firm. He has served as Executive Director of the New York State Legislature's Commission on Science and Technology, Economist to the State Assembly's Subcommittee on Public power and has taught economics at Indiana University. In addition, he serves as Consulting Economist to the Labor Coalition on Public Utilities, Chicago. Mr. Palast received his M.B.A. from the University of Chicago Graduate School of Business where he specialized in Finance of Regulated Industries. Mr. Palast has testified before utility commissions and legislatures in approximately fifty proceedings on issues such as utility financial reorganization, rate of return, income tax accounting and other financial issues. He has studied, developed, and/or testified on plans to solve rate and financial problems posed by the addition of major generating plants. Such studies have included, among others, the Wolf Creek plant (Kansas), the Shoreham plan (New York), the Zimmer plant (Ohio), the Seabrook plant (Maine and New Hampshire) and the Limerick plant (Pennsylvania).

Lewis J. Perl

Dr. Perl is presently a Senior Vice President of the economic consulting firm of National Economic Research Associates, Inc. ("NERA"), specializing in the economics of

energy and the environment. Dr. Perl received his B.S. in industrial and labor relations from Cornell University, his M.A. and PhD. in economics from the university of California at Berkeley. He has taught economics at Cornell University, School of Industrial Relations, and authored numerous economics papers which have been published in professional journals. In addition, he has presented testimony on the comparative cost of coal and nuclear generation before several state regulatory commissions as well as the Federal Energy Regulatory Commission and the Nuclear Regulatory Commission.

John B. Smallpage

Mr. Smallpage has been a member of the NOPSI Board of Directors since 1969. He is owner of Donovan Marine Inc. Mr. Smallpage received his B.S. in Engineering and M.B.A. from Tulane University.

William H. Talbot

Mr. Talbot is presently a Vice President, Assistant to the President and Secretary of NOPSI. He also serves as Secretary for the NOPSI Board of Directors; as secretary he is responsible for the records of all board activities, preparation of the agenda for the board meetings and preparation of the minutes of the NOPSI board meetings.

Charles Teamer

Mr. Teamer has served on the NOPSI Board of Directors since 1978. He is the Vice President of Fiscal Affairs at Dillard University in New Orleans where he has been employed in various capacities for approximately 20 years. Mr. Teamer has a Bachelor Degree in Business Administration and has studied business and finance at several graduate schools.

Regis G. Trumps

As Vice President of System Planning and Forecasting at Middle South Services, Inc. ("MSS"), Mr. Trumps is in charge of the department responsible for assisting the Middle South operating companies in forecasting future electric demand and energy requirements on the Middle South system as well as developing long range expansion plans to accommodate the forecasted requirements. He has been an employee of the Middle South system for 29 years, having joined NOPSI in 1956. He has served as Manager of the electric system planning division of NOPSI, MSS Manager of System Planning, MSS Director of System Planning and Forecasting, and MSS Executive Director of System Planning and Forecasting. He has attended meetings of the Middle South Operating Committee ("MSOC") for over 15 years and served as Secretary of the MSOC from 1978-1984, August 1985 to date. Mr. Trumps graduated from the University of Southwestern Louisiana with a B.S. in Electrical Engineering and has done graduate work at Tulane University.

Robert T. McWhinney

Mr. McWhinney is presently a management consultant and a Director of Putnam, Hayes & Bartlett, Inc. (PHB), an economic and management consulting firm. Mr. McWhinney received his B.S. in Engineering from the United States Naval Academy and his M.B.A. from Stanford University. During his tenure with the Navy, he served as a Nuclear Engineering Division officer and as the Polaris Weapons Officer. Subsequently, he was involved in establishing the Siting Office of the FERC's Energy Resource Development Program and the Safeguards Policy Office within the Regulatory Division of the Atomic Energy Commission. He was Operations Manager in the division of TRW, responsible for the technical consulting assistance TRW provided its energy clients, and later became Vice president and Director of Resource Planning Associates

until its merger with PHB. Mr. McWhinney has provided testimony on the prudence of management decisions before the Federal Energy Regulatory Commission and the Texas Public Utilities Commission. He has authored a guide to strategic management published by the Edison Electric Institute.

Jack M. Wyatt

Mr. Wyatt presently serves on the Board of Directors of both NOPSI and LP&L. Mr. Wyatt is retired but has been employed by both LP&L and Systems Fuel Inc., another MSU subsidiary. He served as LP&L President from 1976 through 1982 and as LP&L Chairman of the Board from 1982 through 1983.